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PATTERNS OF SELF-DISCLOSURE FOR A SAMPLE OF
ADOLESCENTS AND THE RELATIONSHIP OF DISCLOSURE
STYLE TO ANXIETY AND PSYCHOLOGICAL DIFFERENTIATION

by

LLOYD W. WEST



A THESIS

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UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read and recommended to the Faculty of Graduate Studies for acceptance a thesis entitled "Patterns of Self-Disclosure for a Sample of Adolescents, and the Relationship of Disclosure Style to Anxiety and Psychological Differentiation," submitted by Lloyd Wilbert West in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

ABSTRACT

The purpose of this study was to investigate the relationship of adolescent self-disclosure patterns to anxiety and psychological differentiation.

As part of the study, an adolescent self-disclosure inventory was constructed. An attempt was made to establish the construct validity of this instrument. Its reliability was ascertained by test-retest and split-half methods.

The adolescent self-disclosure inventory, *The IPAT Self Analysis Form*, the *Hidden Figures Test—Cf-I* were administered to a sample of 271 grade IX students. The data collected were used to test seven specific hypotheses which were developed from theoretical considerations.

A small positive linear relationship was found between anxiety and extent of self-disclosure. This finding suggests that self-revelation or "transparency" should not be regarded as a panacea for the personal problems of the adolescent.

Selectivity evidenced in matching confidant with content of communication also correlated positively and significantly with anxiety. This result implies that adolescents who are anxious tend to exercise greater circumspection in revealing themselves.

Self-disclosure variables did not correlate significantly, as hypothesized, with *Hidden Figures Test* scores which purportedly index the hypothetical construct of psychological differentiation. Moreover, a significant negative correlation was found between aspect selectivity and target selectivity. These results suggest that

selectivity in self-disclosure is probably a specific form of adjustment rather than a pervasive cognitive response style. The construct of psychological differentiation, therefore, appears to have little utility in self-disclosure theory.

Several sex differences were identified. Of particular interest was the finding that girls, in scrutinizing their communications, give greater attention to confidants than do boys, whereas boys give greater attention to content.

The preferred order of confidants for both sexes was: friends of same sex, mothers, friends of opposite sex, fathers, counselors, and teachers. It is of interest to note that adolescents who have so much to say about their school life are nevertheless practically an enigma to their teachers and counselors.

Numerous other subsidiary findings are reported which contribute to an understanding of adolescent self-disclosure behavior.

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CHAPTER I

INTRODUCTION AND PROBLEM

I. SELF-DISCLOSURE: INTRODUCTION AND DELIMITATION

The hypotheses which this study was designed to test are theoretically derived from the premise that man is both an *evaluative* and a *gregarious* being. Osgood's (1957) studies of semantic space suggest that evaluation is the primary factor by means of which man orders and imparts meaning to the world about him. Early accounts of man's attempt to understand and explain his world as found in mythology and religion are replete with the evaluative dimension of good and evil. In reference to man's gregarious nature Fromm (1959) notes that man actualizes his human potential, if at all, in community with others. Watzlawick, Beavin, and Jackson (1967) reiterate the same premise in their statement that "man *has* to communicate with others for the sake of his own awareness of self." Implicit in these statements is the corollary that man necessarily communicates with others in the face of evaluation.

The present study postulates that as a consequence of the evaluative component of human nature, the child learns early in life that both he and his behavior are certain to be scrutinized. Because he is a gregarious organism and dependent upon others for the satisfaction of his needs, he also discovers that his well-being is contingent upon *favorable* evaluations by others. Moreover, he learns that, within limits, he possesses a capacity to influence these evaluations. Goffman (1959) uses the term "presentation of self" to

refer to the manner in which an individual exerts some effect upon the judgments that others make about him.

Various strategies may be employed to minimize the probability of unfavorable evaluations. The individual who perceives a disparity between himself or his habitual behavior and the social paragon of the culture or subculture with which he identifies may withdraw from intimate social contact by withholding as much personal or self-relevant information as possible. He may present biographical data¹ in a highly expurgated fashion. He may deny or distort such information in order to misrepresent himself. Or, with the support of a defensive reaction formation, he may even present himself to be the very converse of his true being. *Self-presentation* is thus regarded as a generic concept including all modes of defining one's self to others.

Contemporary western society has a tradition of respect for privacy. Ethical injunctions regarding confidentiality have been developed to protect the privacy of the individual. Laws have been enacted to provide immunity from forced testimony against oneself. Those who elicit the self-disclosure of another person by probing into his private or personal affairs (psychological voyeurs) are generally viewed with contempt. It therefore may be inferred that although deliberate misrepresentation of oneself is considered

¹The terms biographical data, personal information, and self-relevant information are used synonymously to refer to any information or data about a unique individual which he may potentially communicate to others. The terms refer to subjective data such as feelings, wishes, thoughts, etc., as well as to objective data such as age, health, income, etc.

reprehensible in Western culture, the concealment of personal information generally is not. Indeed, self-concealment is frequently required by the social conventions of politeness and decorum.

This thesis is restricted to a study of disclosure and concealment of self-relevant information. By thus delimiting the topic to the *self-disclosure* dimension of self-presentation, less socially acceptable strategies for securing favorable evaluations (*e.g.*, misrepresentation) are excluded from consideration. In summary, modulated disclosure of biographical data rather than its distortion or misrepresentation is the focus of concern of the study. Concealment and disclosure are here conceived as poles of an underlying continuous dimension.

Attention is also drawn to the dual aspect of communication in order to further delimit the latitude of the study. Beier (1966) distinguishes between the manifest or lexical component of communication and the covert component by means of which the communicant restricts the response of the respondent. Ruesch and Bateson (1951) contend that two operations are involved in all communications: a) conveying information, (*i.e.*, reporting), and b) imposing behavior, (*i.e.*, commanding). Watzlawick *et al.* (1967) also suggest that a unit of communication possesses both a "content" and a "relationship" aspect. The content aspect conveys information whereas the relationship aspect communicates how the information is to be taken or interpreted. In terms of these constructs the present study deals exclusively with the manifest, reporting, or content aspect of communication. The covert, command, or relationship aspect which undoubtedly plays a

large role in interpersonal relationships is not explored. In brief, the study deals with *what* is communicated but not with *how* it is communicated.

Self-disclosure, as such, is a relative newcomer on the roster of personality dimensions. Some thirty years ago Lewin (1935) used the term "social distance" to describe degrees of readiness to disclose personal information. More recently, Rickers-Ovsiankina (1956, 1958, 1961) has employed the term "social accessibility" to refer essentially to the same construct. It was Jourard (1958, 1959), however, who first made extensive use of the term "self-disclosure" in psychological discourse.

The self-disclosure dimension of human behavior may be analyzed in the manner suggested by Jourard and Lasakow (1958) with reference to two separate facets:

- a) *aspects-of-self* disclosed to others, and
- b) *target-person* toward whom disclosure is directed.

An individual's readiness to disclose biographical data (*i.e.*, his degree of revealingness or transparency) is considered to be a function of each of these variables.

To facilitate further discussion, the schema employed by this thesis for the analysis of self-disclosure is introduced at this point with reference to Figure 1.

The term *aspect-of-self* is used to designate the category, topic, or nature of the biographical data that an individual discloses. A *target-person* or simply a *target* is the recipient of a disclosure, *i.e.*, a confidant. Cells numbered 1 to 36 of Figure 1 represent the degree to which the subject discloses a given aspect-of-self to a given target-person. Six marginal

DESIGNATION OF SELF-DISCLOSURE VARIABLES

ASPECTS-OF-SELF TARGET- PERSON	Health and Phys. Dev.	Self-centered Concerns	Boy-Girl Relations	Home and Family Relations	School	Money, Status Concerns	TOTALS
Mother	1	2	3	4	5	6	37
Father	7	8	9	10	11	12	38
Friend (male)	13	14	15	16	17	18	39
Friend (female)	19	20	21	22	23	24	40
Teacher	25	26	27	28	29	30	41
Counselor	31	32	33	34	35	36	42
TOTALS	43	44	45	46	47	48	49

50 - Selectivity in disclosure to target-persons.

51 - Selectivity in disclosure of aspects-of-self.

52 - Selectivity in linking aspect with target in self-disclosure.

FIGURE I

totals (numbered 37 to 42 inclusive) represent the degree to which the subject discloses all aspects-of-self to a given target-person. Six marginal totals (numbered 43 to 48 inclusive) represent the degree to which the subject discloses a given aspect-of-self to all six target-persons. The term *total self-disclosure* is used to designate the inventoried amount of disclosure of all aspects-of-self to all target-persons. This statistical quantity is represented in Figure 1 by cell 49.

Selectivity in disclosure to target persons is operationally defined as the standard deviation of Figure 1 column entries 37, 38, 39, 40, 41, and 42, divided by the mean. *Selectivity in disclosure of aspects-of-self* is operationally defined as the standard deviation of Figure 1 row entries 43, 44, 45, 46, 47, and 48, divided by the mean. *Selectivity in linking aspect-of-self with target-person in self-disclosure* is operationally defined as the standard deviation of Figure 1 cell entries 1 to 36 inclusive, divided by the mean. A rationale for the operational definition of these three selectivity indices is presented in Section V, Chapter IV.

This analysis schema provides for a total self-disclosure score, aspect subtotals, target subtotals, and three distinguishable and conceptually meaningful indices of selectivity in self-disclosure.

II. GENERAL STATEMENT OF THE PROBLEM

In the past decade, a considerable body of literature has appeared regarding such constructs as *real-self-being*, *congruence*, *integrity*, and *authenticity* (e.g., Jourard, 1959a; Rogers, 1962; Mowrer, 1964; Bugental, 1965). The evolving theory generally

contends that a positive relationship exists between these conceptually similar constructs on the one hand, and good mental health or personal adjustment on the other. Moreover, these constructs are closely related to the concept of self-presentation. An elaboration of this theoretical relationship is made in Chapter II. The relevance of these concepts to counseling and guidance derives from the implication that a healthy presentation of self consists of a presentation that is isomorphic with objective reality, *i.e.*, an authentic or congruent presentation.

Jourard (1958), however, has noted that although essential for health and happiness, real-self-being as manifest in authentic self-disclosure can be very hazardous. Radical sincerity, complete openness, absolute candor, or unrestrained self-disclosure may leave an individual defenseless and vulnerable to personal attack. Such transparency may indeed threaten others, goading them to attack in self-defense. The present study therefore hypothesizes that optimal personal adjustment is contingent upon a selective or differentiated disclosure of self. It recognizes the positive value of real-self-being, but it contends that realistic or situation modulated disclosure of self rather than completely open and spontaneous disclosure produces a minimum of psychological stress or anxiety.

The study further hypothesizes that the degree of selectivity that an individual characteristically exercises in disclosure of self is a function of his level of general *psychological differentiation*. The latter construct refers to the ability or tendency of an individual

to discriminate and to separate relevant from irrelevant factors in an embedding context. A high level of psychological differentiation is descriptive of a consistent tendency to respond in terms of the relevant elements in a complex situation rather than in a *gestalt*-like fashion.

III. THE IMPORTANCE OF THE STUDY

The self-disclosure dimension of personality is not only a relatively novel area of inquiry, but also promises to be an area of great relevance for counseling. Counselees are continuously confronted with alternatives in the presentation of self, both in counseling and in everyday life.

Disclosure decisions are complex and admit of no simple solution. From the viewpoint of the practising counselor, self-disclosure is an area of investigation in which more research and theory are greatly needed. Whether he advises his client on disclosure decisions or simply stimulates his client to explore the alternatives in self-presentation, the counselor's effectiveness in the service of his client will depend largely upon his understanding of the role that concealment and disclosure play in contemporary social existence.

Of particular value to the counselor and his client, then, is a knowledge of the effects and correlates of various patterns of self-disclosure. Specifically, information is needed regarding the probable consequences of three major disclosure alternatives:

- a) general concealment or reticence in disclosure
of biographical data;

- b) selectivity in disclosure
 - i. of aspects-of-self, or
 - ii. to target-persons;
- c) unrestricted, spontaneous self-disclosure.

The present study was designed to contribute empirical evidence bearing on this problem.

An adolescent self-disclosure inventory was developed for this study. Since no other instrument now exists for ascertaining the self-disclosure patterns of adolescents, this inventory could prove useful for much related research and possibly for counseling practice.

The counselor may wish to know which aspects of a client's personal experience are currently accessible to various types of target-persons. The adolescent self-disclosure inventory may provide a means for obtaining such information. The "mapping" of existing patterns of self-disclosure may also yield information regarding a client's readiness to confide or communicate self-relevant information. Inventoried disclosure patterns, moreover, may contribute to an understanding of problems of interpersonal communication and may highlight the interplay between an individual and the significant others in his environment. Such information may also help to clarify the dynamics of selectivity in interpersonal relationships as evidenced by sociometry.

A knowledge of disclosure pattern also may be effective in determining the suitability of a candidate for group counseling. This possibility is based upon the assumption that, a) members of

effective counseling groups are relatively homogeneous with respect to accessibility of topic for discussion, and b) individuals who tend toward concealment of the aspect under discussion from targets who are also group members, will find the group situation rather stressful.

It is conceivable that the identification of disclosure patterns may also contribute to an evaluation of the counseling progress of an individual. This will be especially true where greater openness, greater spontaneity of behavior, or greater affective communication in interpersonal relationships are counseling goals.

In addition to the numerous implications for counseling previously noted, it is believed that the present study also contributes a conceptual model of considerable value to the practising counselor.

CHAPTER II

THEORETICAL FOUNDATION

I. REPRESENTATIONS OF REALITY

Ontology is properly the domain of philosophers rather than counselors. Nevertheless a few concepts regarding reality and its representation have considerable utility in counseling psychology. Beck (1963) documents literature in guidance to indicate that counselors generally presuppose the existence of an objective order of reality. This objective order is represented by the first circle in Figure 2. Objective reality is assumed to exist independent of the perceiver. It consists of "things just as they are." Although constantly in flux, it forever remains invariant to acts of perception and cognition. Mechanisms such as perceptual defense and wishful thinking can never alter objective reality.

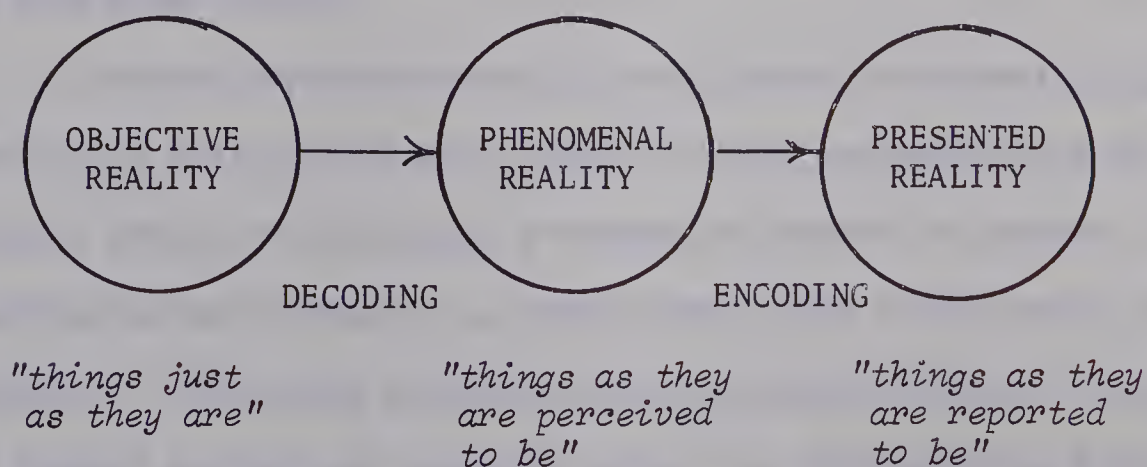


FIGURE 2

Through an act of perception, the individual represents reality to himself. Osgood's (1957) term "decoding" is used to refer to this process of symbolizing reality in awareness. The reality so symbolized is referred to as "phenomenal reality" and is represented in Figure 2 by the middle circle. Phenomenal reality consists of "things as they are perceived to be."

As noted by Bruner (1957), perception can be described as "varyingly veridical." Veridical perception is reliable. If an aspect of objective reality is veridically decoded then it will be decoded in a consistent manner on subsequent encounters. Veridical decoding is here regarded as synonymous to the Rogerian phrase "accurate symbolization in awareness" (Rogers, 1959).

Since decoding varies along a dimension of veridicality, the symbols which constitute awareness (*i.e.*, phenomenal reality) will vary in the degree to which they match or correspond to objective reality. Denial and distortion which sometimes characterize the decoding operation may originate either from defensive motivation or from other causes.

Another representation of reality which necessarily figures heavily in self-presentation theory is that representation of reality which one individual presents or reports to another. This representation of reality is symbolized by the third circle in Figure 2. It is here referred to as *presented reality*. It consists of "things as they are reported to be," as distinguished from "things as they are perceived to be," and "things as they really are." Osgood's (1957) term "encoding" is used to refer to the expression or communication of *presented reality*. Just as decoding

is varyingly veridical, it may be postulated that encoding is varyingly veridical. In other words, the process of encoding gives rise to denial and distortion quite as much as the process of decoding. Indeed, selection, denial, or distortion in the encoding operation may be a very conscious process. It is therefore concluded that presented reality may differ markedly from objective reality, because of selection, denial, or distortion which might occur in decoding and/or encoding.

The individual person, which is the unit of primary interest in counseling psychology, may be conceptualized as a discrete, distinguishable, and identifiable part of total reality. The "I"-concept implies a unitary component of reality which is distinguishable from "other." Corresponding to each type or representation of reality a matching representation of the individual or *self* may be conceptualized. It is therefore possible to speak of the *objective self*, the *phenomenal self*, and the *presented self*. The objective self is usually referred to as the *real self* (Horney, 1950; Jourard, 1958) and is comprised of the individual's "real" feelings, wishes, wants, thoughts, and the like. The phenomenal self is variously referred to as *self concept*, *self-structure*, or *concept of self* (Rogers, 1959). Referring to the presented self William James (1892) used the term *social self*, and Jung (Fordham, 1953) spoke of the *persona*; however, in contemporary psychological literature the most commonly used designation is the *public self* (Jourard, 1958). Since the referent in each case is quite clear the alternative terms may be used interchangeably without serious difficulty.

II. THE CONGRUENCE HYPOTHESIS

Basic to much Rogerian theory with respect to counseling and interpersonal relations is the concept of *congruence*. In terms of the schema presented in Figure 2, congruence refers to the extent to which an isomorphic relation exists between the various representations of reality. This definition is entirely consistent with Rogerian usage. In his most recent book, entitled *On Becoming a Person*, Rogers (1961) defines congruence as follows:

Congruence is the term we have used to indicate an accurate matching of experiencing and awareness. It may be still further extended to cover a matching of experience, awareness, and communication (p. 339).

In the above quotation, the phrase "accurate matching of experiencing and awareness" is equivalent to veridical decoding of experience. Accurate matching of "awareness and communication" is equivalent to veridical encoding of perceived reality. Therefore *incongruence* may occur between experience and awareness or between awareness and communication, in each case giving rise to incongruence between experience and communication.

In the interest of cognitive economy we may designate the two basic kinds of congruence simply as perceptual-congruence (p-congruence) and expressive-congruence (e-congruence). P-congruence is achieved by veridical decoding whereas e-congruence is attained by means of veridical encoding. Veridical decoding implies nonselective and undistorted perception. Likewise veridical encoding implies nonselective and undistorted disclosure.

In contemporary psychological literature congruence is frequently equated with good mental health and with desirable or

optimal personal adjustment. The fully functioning person according to Rogers (1959) is congruent, hence the goal of psychotherapy is greater congruence. Moreover, progress in therapy is indexed by movement toward this goal. Rogers (1961) also considers effective interpersonal relations, like personal adjustment, to be a function of congruence.

Jourard (1958) states that the healthy person faces reality without distortion, selection, or denial. He also includes "real-self-being" as a necessary attribute of good personal adjustment. The most effective indicator of real-self-being, he argues, is true disclosure of self (*i.e.*, transparency) to others. In terms of the schema previously presented, the healthy personality as described by Jourard (1958) is both p-congruent and e-congruent.

Parallel ideas have been elaborated several years ago by Eric Fromm (1941). According to the theory he presents in *Escape from Freedom*, man gains positive freedom through "realization of his self, by being himself" (p. 257). He reaches this state of authentic being only if he "does not repress essential parts of himself, only if he has become transparent to himself" (p. 259). It will be readily observed that in terms of the congruence schema, Fromm's positive freedom is a function of p-congruence. Moreover, Fromm considers spontaneity or e-congruence to lie at the root of personal integrity as illustrated in the following quotation:

The inability to act spontaneously, or to express [disclose] what one genuinely feels and thinks, and the resulting necessity to present a pseudo self [expurgated version of self]

to others and oneself, are the root of the feeling of inferiority and weakness. Whether or not we are aware of it, there is nothing of which we are more ashamed than of not being ourselves, and there is nothing that gives us greater pride and happiness than to think, to feel, and to say [disclose] what is ours (p. 262).

Bugental (1965), a representative of the existential point of view, considers authenticity to be the central concern of counseling. His usage of the term is somewhat philosophical, yet he does state that "high reality perception is closely associated with authenticity" (p. 32). Although expressed with a somewhat different nomenclature, Bugental's concept of authenticity closely parallels the Rogerian concept of congruence. According to Bugental (1965) "a person is authentic in that degree to which his being in the world [presentation of self] is unqualifiedly in accord with the givenness of his own nature [real self] and of the external world" (p. 31). In his book entitled *The Search for Authenticity*, he proceeds from the assumption that authenticity is the ultimate good or value. The value of authenticity [congruence] is postulated rather than argued (Bugental, 1965).

Closely related to the concept of congruence is the concept of alienation. Two kinds of alienation may be conceptualized as arising from the two types of incongruence. The *self-alienated* person is a stranger to himself because of p-*incongruence*. His real feelings are denied to or distorted in awareness. Similarly the *socially alienated* person is a stranger even to the most significant others in his social milieu because he fails to disclose himself accurately to others, and therefore cannot be intimately known and related to them.

Mowrer (1961, 1964) contends that psychopathology is the consequence of *behavior* at variance with group norms which, because it is concealed, leads to social alienation. Therapy, from this point of view, consists in re-establishing "community" with significant others through authentic self-disclosure or confession followed by expiation and restitution. In terms of the congruence schema, Mowrer contends that failure to be e-congruent or to disclose one's real guilt utterly and completely is a contributing factor in the development of psychopathology.

Anonymous (1958), so identified because of his personal experience as an institutionalized mental patient, argues that pathology results from a break not with *reality* but with *sincerity*. In terms of the congruence schema the implication is that pathology is an outcome of e-*incongruence* rather than p-*incongruence*. In brief, distortion or denial at the encoding or expressive level is more pathogenic than distortion or denial at the decoding or perceptual level.

Salter's (1964) theory of conditioned reflex therapy may be cited as a behavioristic example of recent theorizing which, in terms of congruence, may be construed to imply that e-congruence or spontaneous self-disclosure is conducive to health and happiness. According to this theory neuroses result from *schizokinesis* or a split between autonomic and motor responses (*i.e.*, between thoughts or feelings and expression). Salter therefore prescribes "feeling-talk" as a therapeutic agent. Clients are encouraged to express themselves or disclose themselves accurately and completely.

Salter advises his clients that "Feeling is only half of it. Saying it, getting it out in our muscles is the other half" (p. 28). In the language of congruence, Salter therefore suggests that personal adjustment is contingent upon both p-congruence and e-congruence.

Perhaps no one has done more than Jourard (1958, 1964) to popularize the hygienic virtues of transparency. Jourard believes that *only* through self-disclosure does the individual submit himself to the differential reinforcements necessary for positive growth and change in behavior. In this respect his position shows considerable similarity to that of Salter's.

III. CONCEALMENT IN THE PRESENTATION OF SELF

The positive value of e-congruence, self-disclosure, and equivalent concepts has many eloquent spokesmen. Comparatively little has been said in psychological literature regarding the role of concealment in the presentation of self in contemporary social life. Some further discussion of this topic is therefore appropriate.

Not all writers are convinced that self-disclosure correlates positively with health or personal adjustment. Dollard and Miller (1950), for example, state that:

Normal people have low motivation to talk frankly and extensively about their most significant problems. Only neurotic misery seems to provide the strong drive required (p. 4).

According to Goffman (1963) medical practitioners often recommend that their patients handle disclosure risks by compartmentalizing the world into a large group to whom they should tell nothing, and a small group to whom they should tell all, and upon whose help they should rely. However, when one deliberately conceals an aspect of himself in order to influence the judgment of others, he is in effect presenting to them a perjured or expurgated biography. He is not being e-congruent. The manner in which he defines himself publicly, in colloquial terms, is something less than "the truth, the whole truth, and nothing but the truth."

Hunt (1964) in a popular article entitled *Better Not to "Tell All"*, contends that the individual is obligated *not* to indulge in total self-revelation, especially to others with whom he is intimately related. Hunt views such disclosure to loved targets as an immature, selfish, and dangerous act. He cites as illustrations of aspects-of-self to be concealed, such things as doubts, worries, fears, ugly or pessimistic thoughts, and sexual infidelity. Such disclosures temporarily may seem a catharsis and therefore beneficial to the discloser, but since they tend to shift the burden of concern onto the loved target they are to be avoided. The mature person, according to this point of view, will seek targets who are less emotionally involved and are therefore unlikely to be harmed by anything the discloser wishes to tell. Hunt also maintains that unrestricted self-disclosure tends to drive people apart rather than closer together.

Unselective disclosers are commonly perceived by others as "blabber mouths" and are generally not trusted to exercise discretion in maintaining confidences. Since they cannot safely be taken into confidence they are unlikely to have close or intimate friendships. Excessive transparency may thus contribute to social alienation.

Prejudice and persecution are unhappy facts of social reality. Any attribute which lowers the status of an individual or makes him the object of prejudice or persecution constitutes a *stigma*. What is and what is not stigmatic is a relative matter depending upon the cultural determination of what is and what is not desirable. Farnia *et al.* (1966) recently studied the role of stigma in interpersonal interaction. These investigators found that subjects who merely simulated a stigma (*e.g.*, a history of mental illness) were treated harshly and with contempt. They were described unjustifiably as less adequate, and were actively avoided. Unless it becomes pathologically exaggerated, therefore, *caution in self-disclosure* may well constitute the healthy, adaptive, and realistic response to reality.

There is also some empirical evidence to indicate that healthy people do conceal, dissimulate, or otherwise present themselves in a good light. Braginsky *et al.* (1966) studied the use of impression management by mental patients. These investigators found that mental patients are able to influence significantly their hospital fate through impression management. The subjects of the study were divided into two groups which were given an identical pencil-and-paper test. The test was portrayed as a

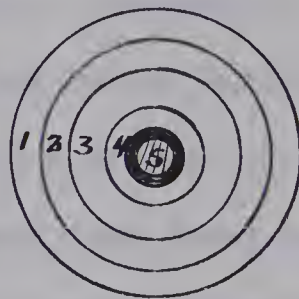
measure of "illness" to one group and as a measure of "self-insight" to the other. Subjects were also provided with a "script" for appropriate performance by being informed that the test score was equal to the number of true responses. Thus one group of subjects perceived the number of true responses to be a measure of illness, whereas the other group perceived the number of true responses to be a measure of self-insight. Patients who were motivated to stay at the hospital presented themselves on the test as being ill or as having little insight. Those motivated to leave the hospital presented themselves as being healthy or as having great insight. Patients who desired to leave the hospital and who presented themselves on the test according to the appropriate script had a much higher rate of discharge than those who did not.

Wheeler *et al.* (1951) factor analyzed the MMPI and obtained a factor which they describe as a "psychotic factor." Yet this factor, as Fordyce (1956) points out, closely resembles social undesirability. Since MMPI scales are empirically validated and do distinguish between normal and psychotic personalities, it may be inferred that a willingness to disclose undesirable aspects-of-self or to present oneself in a socially undesirable light is characteristic of pathology. Indeed, one's score on several clinically validated MMPI scales is directly proportional to his willingness to report socially undesirable things about himself.

To disclose or not to disclose thus remains a question. Additional empirical knowledge regarding the correlates of self-disclosure patterns is required for a pragmatic consideration of the problem.

IV. THE LEWINIAN TOPOLOGICAL SCHEMA

The Lewinian topological schema has provided theoretical framework for several studies of social accessibility and self-disclosure (*e.g.*, Rickers-Ovsiankina, 1956; Plog, 1965). Since it has proved to be a useful model for providing a language for discussing stylistic modes or idiosyncratic consistencies in self-disclosure it will be briefly described in this section.



(a) U-type



(b) G-type

FIGURE 3*

Lewin (1935) used concentric circles as illustrated in Figure 3 to represent personality schematically. The area between the larger circles represents the more peripheral regions of personality. Likewise the more central regions of the person, those that are more intimate and personal, are represented by areas closer to the center of the system of circles. The degree of resistance against communication to the outside is represented by the strength of the boundaries. The more permeable boundaries which permit rather free social interplay are indicated by a thin line. A heavy line is used to indicate a boundary which to a high degree insulates an area from social commerce. Thus in

*Lewin (1935) p.283.

Lewinian schema, the thickness of the boundary lines between personality layers represents differences in social accessibility. The hatched area corresponds to the private and concealed region of the person, whereas the plain area corresponds to the public or disclosed region.

Lewin (1935) used diagram (a) of Figure 3 to describe the American personality as distinguished from the German personality indicated by diagram (b). He had observed, shortly after immigrating to the United States, that Americans are more willing to discuss a variety of topics with a variety of people. By contrast he believed that fewer aspects of the German personality were open to public social interplay. These observations are illustrated in Figure 3 where regions 1, 2, 3, and 4 of the U-type personality are publicly accessible and region 5 is concealed. In the G-type personality only region 1 is accessible whereas regions 2, 3, 4, and 5 are concealed.

The studies of Rickers-Ovsiankina and Kusmin (1958) on social accessibility are conceptualized within the framework of Lewinian topological psychology. In order to index social accessibility, these investigators use a 50-item Accessibility Questionnaire. Items are considered discrete and are not categorized for aspect-of-self to which they pertain. For a given individual, one may therefore postulate an ordinal arrangement of all items along a continuum from greater to lesser accessibility. Such a method of investigation lends itself to the Lewinian schema of hierarchic personality organization.

When self-disclosure is viewed with reference to both aspect-of-self and target, Lewin's schema proves somewhat inadequate. The regions bounded by concentric circles cannot be used to designate aspects-of-self disclosed since such designation would suggest that an individual must be completely open with respect to aspect 1 as a pre-condition to openness with respect to aspect 2 and so on. Such a condition obviously does not exist. Within each aspect-of-self, items may be conceptually ordered with reference to their accessibility to a given target-person. Some items of a generally concealed aspect-of-self may be more accessible to a given target-person than other items of a generally disclosed aspect. The Lewinian schema, moreover, makes no provision for the role of the target-person in the differential disclosure of self-relevant data.

V. AN ADAPTATION OF GOFFMAN'S DRAMATURGICAL MODEL

In *The Presentation of Self in Everyday Life* Erving Goffman (1959) presents a dramaturgical model for describing interpersonal behavior. The book emphasizes the management aspect of self-presentation and thus is particularly relevant to a consideration of the question of self-disclosure *vs.* concealment. Goffman defines a *region* as any space bounded to some degree by barriers to perception (p. 106).

In Goffman's model the space-time manifold is conceptually divided into three regions, *front regions*, *back regions*, and *outside regions*. Control or management of self-relevant information is facilitated by dividing the field into regions in order to maintain

perceptual barriers.

A front region is a place where impressions are made, and where social definitions are sustained. In a front region the individual is "onstage" and it is expedient for him to wear a façade or to present himself in a favorable light.

A back region, in contrast, is a place where one can "let his hair down," unmask, step out of character, relax, and be himself. It is a place where he may be spontaneously transparent or e-congruent in safety.

When onstage or in a front region one is under scrutiny. The satisfaction of many of his physical and social needs will be contingent upon the kind of evaluation that others make of him. Thus in a front region one tends *not* to be spontaneously himself, but rather to manage carefully the way he defines himself. He discloses himself selectively, presenting an expurgated biography that will do him no harm. The purpose of a front region presentation, then, is to win the conditional positive regard of others.

The nature of the region is determined by the characteristics of the audience (target) and the aspect-of-self under consideration. If the target's favor is highly valued, and if the target is likely to respond negatively to a particular aspect-of-self when disclosed, the situation will likely be regarded as "front region." Moreover, if the target cannot be trusted, if he cannot be expected to maintain confidentiality, the situation also is likely to be categorized as "front region."

When, however, the target is perceived as trustworthy, and not negatively judgmental of a particular aspect-of-self, the

individual will be free to disclose that aspect and will consider the situation to be of the back region variety. Existentialists refer to such a spontaneous back region relationship as an *encounter* (May, 1958).

The terms "front" and "back" are especially appropriate for the designation of conceptual regions or situations in which one respectively discloses or conceals aspects-of-self. The term "front" conventionally implies a façade, an area where appearances are sustained, a public area. "Back," on the other hand, implies a region closed to public purview. When one conceals an aspect-of-self he keeps "back" a portion of the whole truth.

Goffman's dramaturgical analogy is elaborated and redesignated "architectural" rather than "dramaturgical" in order to adapt it for current use. In the architectural analogy, a large edifice such as a department store with several floors, one for each department, is conceptualized. No hierarchic arrangement, however, is implied by floor level. Each department or floor has its necessary front and back regions.

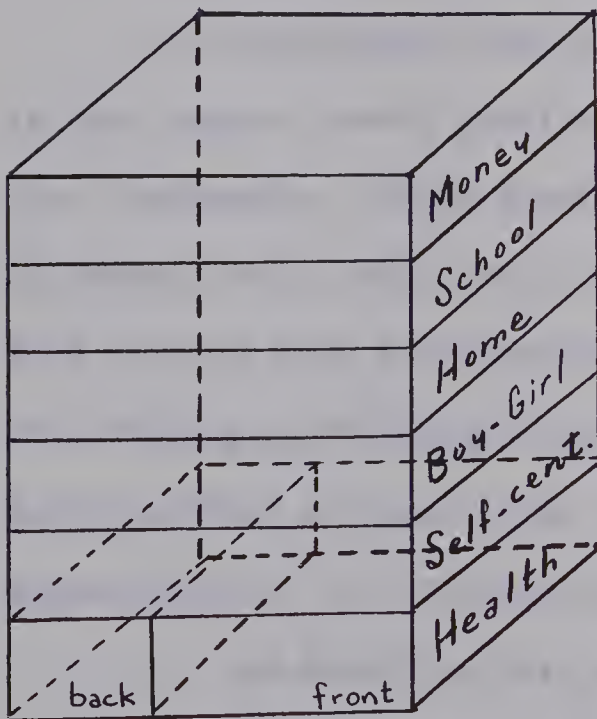


FIGURE 4

The suggested analogy is represented by Figure 4. Aspects-of-self correspond to floors or departments. For each aspect-of-self there is a front and a back region. The relative size of front and

back regions will vary from target to target and from aspect to aspect. A separate architectural "mapping" of self-disclosure, therefore, is necessary for each target person.

It is assumed that as a result of a long history of social learning the individual develops relatively stable habits of self-presentation. His behavior will therefore evidence idiosyncratic consistencies in self-disclosure. The extent to which he discloses various aspects-of-self, the kinds of target persons to whom he discloses, and the selectivity which he exercises in self-disclosure, collectively comprise what may be called his unique *style* or *pattern of self-disclosure*. The pattern and extent to which one discloses himself to a given target may be described with reference to the architectural model presented in Figure 4.

It is postulated that conditions which define a situation as back region closely parallel the conditions which make a situation therapeutic. These conditions have been explored and described by Rogers (1957, 1958, 1962, 1965), Halkides (1958), and Truax (1963). Thus from the body of literature dealing with the characteristics of a helping relationship we may infer that a situation may be safely defined as back region with respect to a target and an aspect-of-self, to the extent that:

1. the target is able and willing to understand the individual as he really is *in that aspect*;
2. the target experiences non-possessive concern, acceptance, and warmth for the individual;
3. the target is integrated, genuine, congruent, or authentic in the situation.

An emotionally close, loving, or intimate relationship is not always a back region relationship as Goffman (1963) has noted. An individual may conceal some aspects of his existence, precisely from those with whom he is most intimately related. It may be predicted from the theoretical considerations presented thus far that an individual will tend to conceal rather than disclose a given aspect-of-self to an intimate other when he highly values the positive regard of the other or is dependent upon him for need gratification, but judges that the intimate other may not understand or accept the reality disclosed. He may also conceal self-relevant information from an intimate other when he believes that disclosure would hurt or injure one whom he prizes. Notwithstanding Mowrer's (1964) advocacy of "huddle-together-self-help" confessions, the above ideas argue in favor of professional *confidential* counseling relationships.

It is postulated that there is a place and a time (*i.e.*, a conceptual region) where disclosure of an aspect-of-self is comparatively safe and rewarding for the individual. There is a place and a time where self-disclosure is appropriate and does not violate the social standards of politeness and decorum. Classifying a region with respect to its suitability for self-disclosure (*i.e.*, "front" or "back") is not a simple task.

When the individual is uncertain of the nature of a region he may engage in guarded disclosures in order to test this region for this target. *Guarded disclosures* are "feelers" to determine if the situation meets the requirements of a disclosing, confiding, or

back region relationship; *i.e.*, of an encounter. A region may be misclassified as a result of ineffective "testing" or as a result of errors in perception and/or judgment. Self-disclosure in a misclassified region leads to unfortunate consequences or negative reinforcement.

In terms of the architectural analogy, the ideal counseling relationship may be conceived as one in which the client need not maintain a front region with respect to any aspect-of-self. In other words, it is for the client, a totally back region situation where he may be transparent with complete security.

VI. SELF-DISCLOSURE AND ANXIETY

Since the early beginnings of psychotherapy toward the end of the 19th century, self-disclosure has played an important role in most counseling and psychotherapeutic relationships. It well may be a necessary factor in all growth facilitating encounters. According to Rickers-Ovsiankina and Kusmin (1958), self-disclosure serves at least three synergistic¹ purposes:

1. It allows the subject to clarify his personal constructs thus providing for insight and understanding.
2. It permits emotional catharsis.
3. It contributes to a sense of belongingness by providing the individual with an opportunity to experience a sharing of his humanness.

¹Inasmuch as counselors deal predominately with normal individuals and their existential problems rather than with pathology, the term "synergistic" is preferred to the term "therapeutic."

Self-disclosure may be considered in relation to Selye's (1956) concept of stress. According to Selye, stress is the "wear and tear" in an organic system which results from the effort to adjust or adapt. Selye's stress theory assumes that all organisms are endowed with a limited potential for generating adaptive energy. The extravagant consumption of this limited resource results in a decreasing ability to cope with new adaptive requirements. Inordinate stress and the excessive depletion of adaptive energy eventually may lead to the complete breakdown of the organic system. Selye (1956) therefore suggests that *"an essential feature of adaptation is the delimitation of stress to the smallest area capable of meeting the requirements of a situation"* (p. 120).

This thesis contends that "front region" behavior consumes a large amount of adaptive energy. Considerable effort is required to scan a situation for contingencies, conceal various aspects-of-self, and present the appropriate façade. Jourard (1958) argues that when an individual is forced to "keep up his guard," other people by their very presence act as *stressors*. Much of an individual's limited supply of adaptive energy is thus consumed by front region behavior. Hence, the relaxation of one's guard whenever safe and appropriate is an adaptive response directed to the conservation of vital energy. This line of reasoning would suggest that the individual who is always *onstage*, unnecessarily consumes a large supply of adaptive energy. Such a person, in this view, would be prone to problems of a personal nature, and is likely to manifest a high degree of anxiety.

It has been noted that self-disclosure is not always safe but rather may expose an individual to *real* danger because to be transparent with others means to be without defenses. Moreover, as Tyler (1960) has noted, defenses on occasion have positive value for the individual. Apparently all living things acquire a cuticle to protect themselves from the uncongenial elements of their environment. A façade which conceals vulnerable aspects-of-self may similarly protect the individual from undue stress and overwhelming anxiety. Certainly to expose oneself *unnecessarily* to attack (physical or psycho-social) is indicative of masochism rather than positive adjustment. In terms of stress, the "cost" of concealing may often be less than the cost of adjusting to the social consequences of disclosure.

It is therefore reasonable to assume that inappropriate or unwarranted self-disclosure leaves the individual exposed to highly stressful situations which require the extravagant consumption of adaptive energy. The individual who always is vulnerably open and defenseless against damaging evaluation is likely to encounter an inordinate degree of stress. Such chronic exposure to stress, by definition, is indicative of poor adjustment and therefore may be expected to manifest itself in high anxiety.

It has been argued that those who tend toward concealment on all occasions deny themselves the synergistic effects of self-disclosure and unnecessarily subject themselves to the stress of chronic concealment. Moreover, it has been argued that those who tend toward transparency on all occasions leave themselves vulnerable

to personal attack and, therefore, also unnecessarily subject themselves to psychological stress. It logically follows that optimal adjustment and minimal anxiety may result neither from the extremes of constant concealment nor general revealingness but rather from the careful selection of conceptual regions in which one may spontaneously disclose a given aspect-of-self to a given target-person.

Although Jourard (1958) is convinced that most people are likely to be overly cautious rather than excessively open, he notes the dangers of both extremes. In discussing the importance of self-disclosure he states that:

It should not be construed from all the preceding discussion that the sheer *amount* of self-disclosure that goes on between participants in a relationship is an index of the health of the relationship or of the persons. There are such factors as *timing*, *interest of other persons*, *appropriateness*, and *effect of disclosures on either participant* [italics added] which must be considered in any such judgment (p. 353).

Jourard (1958) also notes that:

If a relationship exists between self-disclosure and factors of health, it is likely to be curvilinear, not linear; that is, too much disclosure and too little disclosure may be associated with unhealthy personality, while some intermediate amount, under appropriate conditions and settings, is indicative of healthier personality (p. 353).

The present study was designed to test, for a sample of adolescents, the hypothesis suggested by Jourard, that a curvilinear U-shaped relationship exists between total amount of self-disclosure as operationally defined in Chapter I and anxiety. See Hypothesis I, Chapter IV. Hypotheses II, III, and IV which are formally stated in Chapter IV also arise from the foregoing considerations and are

implicit in the above quotes from Jourard which emphasize the importance of appropriateness or selectivity in self-disclosure.

VII. SELF-DISCLOSURE AND PSYCHOLOGICAL DIFFERENTIATION

Personality theories based upon the concept of adaptation view the personality as an open psychological system in continuous commerce with an internal and an external environment. Such a system strives to achieve equilibrium between two sources of tensions—those which arise from inner striving and those which result from external demands of reality.

The structure of any system is characterized by varying degrees of differentiation. A highly differentiated system implies specialization or heterogeneity in the function of component parts. Less differentiated systems are characterized by a relatively homogeneous structural state. According to Witkin *et al.*, (1962), specialization in reference to a psychological system implies not only the separation of cognitive processes such as perceiving, feeling, thinking, and acting, but also specificity of functioning within a given cognitive area. For example, differentiation with respect to perception implies that the elements of the perceptual field are experienced as discrete rather than fused with their background. Psychological differentiation further implies ability to analyze or discriminate among subtle nuances.

Differentiation is often viewed within a developmental context. Witkin *et al.*, (1962) observe that human ontogenetic development is characterized by increasing degrees of differentiation.

As a child develops he is increasingly capable of separating self from nonself, sense from nonsense, acceptable from unacceptable, and relevant from irrelevant. Such observations have led Witkin and his coworkers to propose *the differentiation hypothesis*. Briefly, this hypothesis states that a significant relationship exists in the degree of differentiation that obtains in each of the various areas of psychological functioning. Psychological differentiation therefore is conceived as a pervasive development attribute and a "common denominator" of all cognitive functioning.

Individuals characterized by a low level of psychological differentiation are *field-dependent* perceivers (Witkin *et al.*, 1962). They find it difficult to overcome the influence of the surrounding field or to separate an item from its embedding context. Such persons take a long time to locate a familiar figure hidden in a complex design. Because their experience lacks articulation (analysis and structure) the mode by which they experience the world is said to be "global."

By way of contrast, individuals who possess a high degree of psychological differentiation are *field-independent* perceivers. They readily manage to separate relevant elements from their embedding context [field]. They are selective and discriminating. Their experience of the world and of themselves is highly articulated and thus said to be "analytical."

Witkin *et al.*, (1962) employ the field-dependence-independence dimension of perception 'as a "tracer element" in identifying level of psychological differentiation more generally' (p. 24). Field-dependence-independence is conveniently indexed by the embedded

figures tests.

The dimension of differentiation with its *global* or undifferentiated and *analytical* or highly differentiated poles may be employed in the description of self-disclosure patterns. The pattern of self-disclosure for an individual who characteristically discloses certain aspects-of-self to some targets but conceals them from others may be considered "analytical" because it is highly differentiated and selective. Similarly, the pattern of self-disclosure for an individual who characteristically manifests little selectivity in what he reveals or to whom he discloses may be described as "global." Global disclosure patterns would encompass the extremes of both a) concealing almost everything from everyone, and b) disclosing almost everything to everyone. In this manner a parallel is drawn between the concepts of psychological differentiation and selectivity in self-disclosure.

It may further be argued that in order to separate successfully back regions from their embedding context of front regions the individual must be able to attend selectively to relevant elements in the situation and ignore the irrelevant. It therefore is hypothesized that selectivity in self-disclosure is an indicator of psychological differentiation and will correlate significantly with other indicators of psychological differentiation such as measures of field-dependence-independence. Hypotheses V, VI, and VII, formally stated in Chapter IV, restate this general hypothesis with reference to three specific measures of selectivity in self-disclosure. Empirical support for these hypotheses may be

construed as additional support for the differentiation hypothesis proposed by Witkin and his coworkers.

CHAPTER III

REVIEW OF SELF-DISCLOSURE AND SOCIAL ACCESSIBILITY STUDIES

I. THE SELF-DISCLOSURE STUDIES

One of the early studies in self-disclosure is that of Jourard and Lasakow (1958). These investigators devised a 60-item questionnaire having ten items for each of six categories or aspects-of-self. In responding to the questionnaire, subjects were required to read each item and indicate on an answer sheet the extent to which they had talked about that item to each of four target persons—mother, father, male friend and female friend. Four response options were provided for each item, one of which enabled the respondent to indicate whether he had lied or misrepresented himself to a given target-person. Samples were drawn from college students of both sexes. A split-half reliability coefficient of .94 was obtained for the total questionnaire. The results of an analysis of variance of their data indicated that:

1. females disclosed more than males;
2. white subjects disclosed more than negroes;
3. all groups of subjects disclosed more about their tastes, interests, attitudes, and opinions than about money, personality, and body;
4. mothers were the preferred target of self-disclosure among unmarried subjects;
5. married subjects disclosed more to their spouse than to anyone else and became relatively reticent toward others;

6. high self-disclosure to parents was associated with positive feelings toward parents;
7. a significant interaction was found between targets and aspects.

In a cross-cultural study, Jourard (1961) found the patterns of self-disclosure among female college students in England to be very similar to those of American female college students. In another cross-cultural study, Melikian (1962) administered an adaptation of Jourard's questionnaire to 158 male students at the American University of Beirut in Lebanon. Subjects came from nine different countries and two major religions (Christian and Moslem). No significant differences were found among the nine groups in total self-disclosure. Melikian concludes that "in spite of linguistic, ethnic, and religious differences between [his] subjects, there seems to be a common factor which influences their readiness for self-disclosure" (p. 260). He believes that this factor is an authoritarian family structure which, with some variations, is common to all nine cultural groups included in his study. The order of target suitability for self-disclosure among Melikian's sample of college men was: male friend, mother, father, and female friend. Interactions between target and group, and between aspect and group were significant beyond the .001 level. The investigator does not report group means on aspects or targets and thus an interpretation of the obtained significant interaction is restricted.

In discussing the results of a number of self-disclosure studies Jourard (1964) notes that his subjects consistently disclose less to fathers than to mothers. His studies have also led him to

conclude that the probability of self-disclosure to a given target-person increases with the degree to which that target-person is known to the subject. Jourard and Landsman (1960) find that a self-disclosing target-person tends to elicit self-disclosure in the subject.

Jourard (1964) states that unpublished data which he collected indicate that applicants for college counseling services were lower disclosers than matched groups of students who had not sought counseling services. Some of the applicants, however, had unusually high disclosure scores. The data suggest that excessive disclosure may be incompatible with optimum adjustment. In another study Jourard (1959b) found that the two subjects least liked by their peers were, respectively, the highest and lowest self-disclosers in his sample. These two studies may be considered to lend some support to Hypothesis I of this study.

In what may be construed as a study of predictive validity Jourard (1962a) found that nursing students who received the highest ratings for their ability to establish and maintain a communicative relationship with patients were significantly higher disclosers on a self-disclosure questionnaire administered a year earlier, than were nursing students who received lower ratings. The study suggests that a measure of self-disclosure may be useful in predicting future performance in those vocations which require the establishment of a helping relationship.

Powell (1962), a student of Jourard's, administered a self-disclosure questionnaire to underachieving college students

at the University of Florida. He found no significant differences between these students and a matched group of adequately achieving students in mean disclosure to any target person. However, he did find a significant correlation between degree of self-disclosure to peers and personal security for the adequate achievers but not for the underachievers. He also found a significant correlation between self-disclosure to parents and personal security for the underachievers but not for the adequate achievers. He therefore concludes that security for underachievers is a function of intimacy of relationship with parents, whereas security for adequate achievers is more dependent upon intimate relationships with peers.

Brown and Ables (1960) in a very interesting study of "façade orientation" found that low scholarship was associated with high façade orientation or a willingness to present oneself in a favorable light where self-interest dictates. The investigators suggest that low scholarship students learn to rationalize and ignore their failure and exaggerate or distort their successes in order to maintain a favorable impression. The suggestion is in line with Crowne and Marlowe's (1964) finding that adults with a strong tendency to give socially desirable responses (*i.e.*, present themselves in a favorable light) have strong affiliative needs but are fearful of rejection.

Plog (1965) conducted a study to test Lewin's (1935) assumptions about German and American national differences. For this study he developed a self-disclosure test of 40 items divided equally among eight topic areas. Subjects were required to rate themselves for willingness to discuss an item with each of six

target-persons. Split-half reliability coefficients of .94 and .89 were reported for the test. In line with Lewin's observation some 30 years earlier that Americans disclose more readily than Germans, Plog found that the difference between the means of German and American total disclosure scores for his sample of college students was highly significant ($p < .001$). He found no significant difference between total self-disclosure scores for men and women, however. This finding is at variance with that of Jourard and Lasakow (1958). Different samples and different instruments probably account for the difference in findings of these investigators.

Plog also found no significant difference in *variability* of self-disclosure patterns between students in the United States and Germany. Moreover, the rank ordering of disclosure topics for both groups were almost identical. The latter finding is consistent with those of Rickers-Ovsiankina (1956, 1958).

Lubin and Harrison (1964) administered the Jourard Self-Disclosure Inventory to 68 management level participants in a group process conference before they first met in small group sessions. After 20 group sessions, trainers rated each participant on a 9-point scale of self-disclosure based on the degree to which their behavior in the sessions was self-disclosing. Trainer rating reliability was reported as .69. The correlation between total score on the Self-Disclosure Inventory and independent ratings of self-disclosure was .13 ($p < .05$). As a validity coefficient this correlation is not high and leaves much to be desired. However, several factors must be considered.

1. Target-persons were altered. Lubin and Harrison did not use the target-persons of the Jourard studies.
2. Rater reliability is low.
3. The Jourard Self-Disclosure Inventory purports to assess disclosure in dyadic relationships rather than in groups.
4. Selective or *analytical disclosers* may obtain reasonably high total disclosure scores, yet be relatively reticent or concealing in some situations.

In a sequel study Lubin (1965) reduced the 40-item Self-Disclosure Inventory to 20 items by means of an item analysis. Items which correlated significantly with total score for their three targets at the .05 level of significance or less were retained. This investigator then administered his reduced version of the Self-Disclosure Inventory to a new group of 43 subjects prior to participation in a one-week sensitivity group conference. They obtained measures of anxiety, depression, and hostility for their subjects and correlated these measures with self-disclosure scores. Correlations of $-.26$, $-.27$, and $-.27$ respectively were obtained ($.05 < p < .10$).

Taylor and Altman (1966) have attempted to develop a pool of "psychometric materials" for research in self-disclosure. They collected 671 statements about various aspects-of-self which might be discussed in interpersonal relations with others. The items were then scaled by the Thurstone procedure for "intimacy" and were classified for topical category by judges from two populations. The items are recommended for use in the development of adult self-disclosure

inventories.

Studies in self-disclosure, stimulated largely by the work of Jourard, have been confined to adult college populations. Moreover, most of the studies reported in the literature are descriptive of self-disclosure patterns found in various samples or cultures. Few hypotheses regarding the correlates or consequences of specific disclosure patterns within a given sample have been tested.

The proposed study would appear to be somewhat novel in at least three respects:

1. It employs an adolescent sample.
2. It tests hypotheses regarding the correlates of different disclosure patterns found within a single sample.
3. Its focus is primarily upon selectivity in self-disclosure rather than on total amount of self-disclosure.

II. THE SOCIAL ACCESSIBILITY STUDIES

Closely related to the self-disclosure studies are the social accessibility studies of Rickers-Ovsiankina. Basing her investigations on Lewinian topological theory, Rickers-Ovsiankina (1956) drew up a list of 25 items ranging from clearly superficial topics to those of an intimate nature. The items were cast in the form of direct questions and randomly arranged for presentation. Subjects responded by indicating with a plus or minus sign whether they would be willing to answer the question if it were asked by a) a stranger whom they

would never see again, b) an acquaintance, or c) their best friend. The questionnaire was administered to 20 freshmen, 30 seniors and 25 alumni of a New England residential girls' college. Three age groups were thus represented.

In order to test Lewin's topological hypothesis that differing degrees of accessibility exist among inner personal regions, the investigator assigned a score to each item by averaging the total number of plus signs given to that item. The maximum possible mean score for an item was therefore 3, and indicated that each subject of the group marked a plus sign for all three contacts—strangers, acquaintances, and best friends. Items were then ranked on the basis of these mean scores, separately, for each age group. The larger the score the greater the accessibility of the group on that particular topic.

Rickers-Ovsiankina found that her items sampled a considerable range of accessibility layers, from complete openness (disclosure) to pronounced guardedness (concealment).

Correlations of the order .90 were found between the different age groups for item accessibility. Hence Rickers-Ovsiankina concludes that the obtained accessibility pattern has remarkable stability over time. By and large, the same hierarchic organization of inner regions exists in all three age groups. A few items, however, vary considerably among the age groups, hence stability does not imply rigidity.

An especially interesting finding was that seniors show significantly higher over-all accessibility than freshmen, but

that alumni show no higher over-all accessibility than seniors. The investigator concludes that residential college life contributes a weakening effect upon the outer boundaries of personality thus creating greater fluidity among regions and greater accessibility of regions to the environment.

Rickers-Ovsiankina suggests that the responsiveness of a subject depends upon his perception of the role of the enquirer with respect to the particular topic under consideration. This is especially true for topics of a very intimate nature. For the most closely guarded topics some subjects may actually favor accessibility to a stranger rather than to an acquaintance or friend. This exception to the general pattern seems characteristic for a few subjects who probably feel safer in confiding with a person whom they may never see again than with an acquaintance with whom contacts are likely to be recurrent. Thus, although social accessibility is directly related to the social distance of the enquirer, the latter is not the sole criterion in determining the accessibility of a topic.

In a sequel study, Rickers-Ovsiankina and Kusmin (1958) expanded the original 25-item questionnaire to 50 items and used a much larger sample of 102 female and 143 male university students. In a test-retest of 34 subjects with an 18-month time interval, a reliability coefficient of .69 was obtained. The investigators again note the stability of social accessibility yet do not ignore the variability which accompanies appreciable change in the subject's environment. An impressive product moment correlation of .96 was found between the sexes on mean item scores. Although significantly different

for a few items, the accessibility patterns for the sexes are extremely similar. The sequel study, once again, supports the conclusion that accessibility of inner personal regions to communication is organized along a hierarchic continuum of considerable similarity for both sexes and having considerable stability over time.

Rickers-Ovsiankina and Kusmin note that several of their subjects depart from the common pattern in one way or another. Some exclude a best friend yet respond positively to a stranger on some items. These deviations, however, followed no discernible pattern or consistent approach.

The investigators also observed a difference in their subjects regarding the extent to which they differentiate among types of enquirers. Some subjects, they say, "seem inclined toward talking either to everyone or to no one, and have no gradation of preference among conversational partners" (p. 397). It is this pattern of disclosing which is referred to in this thesis as *global* in contrast to the more selective or *analytical* pattern.

CHAPTER IV

DESIGN OF THE STUDY

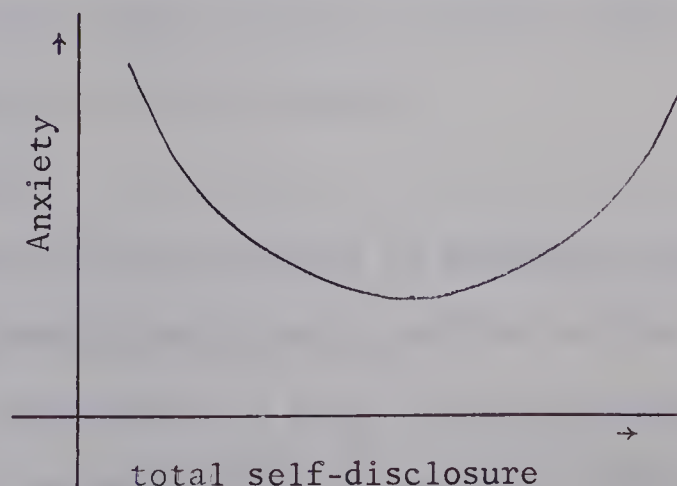
A formal list of the hypotheses of the study is presented in this chapter. The development of the adolescent self-disclosure inventory is discussed at length. Other instruments used in the study also are briefly described. A demographic description of the sample is then given. Finally, the procedure used for collecting the data and analyzing the results is presented.

I. THE HYPOTHESES TESTED

Hypotheses I, II, III, and IV deal with self-disclosure and anxiety. They are derived from the theoretical considerations presented in Chapter II, Section VI.

Hypothesis I

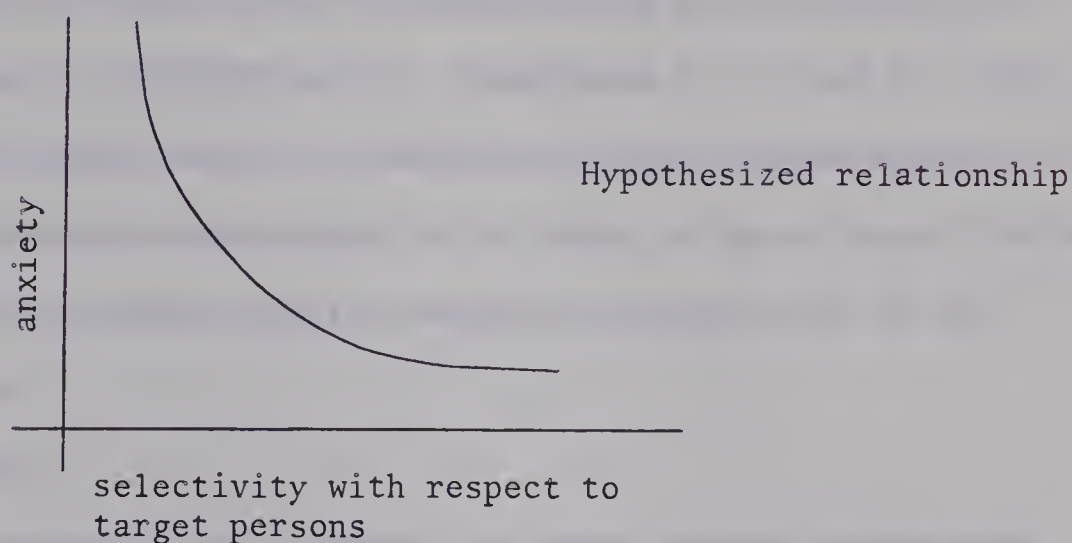
A curvilinear U-shaped relationship exists between total self-disclosure (operationally defined as Figure 1 cell entry 49) and level of anxiety as measured by the *IPAT Self Analysis Form*. (Both high and low disclosers are more anxious than modal disclosers.)



Hypothesis II

Selectivity with respect to target-persons toward whom

self-disclosures are made (operationally defined as the standard deviation of Figure 1 cell entries 37 to 42 inclusive, divided by their mean) is inversely related to level of anxiety. (Subjects who are selective in choosing their confidants will encounter fewer adjustment problems and consequently are less anxious.)



Hypothesis III

Selectivity with respect to aspects-of-self disclosed (operationally defined as the standard deviation of Figure 1 cell entries 43 to 48 inclusive, divided by their mean) is inversely related to anxiety. (Subjects who are selective in the degree to which they disclose various aspects-of-self encounter fewer adjustment problems and consequently are less anxious.)

Hypothesis IV

Selectivity with respect to matching target with aspect-of-self disclosed (operationally defined as the standard deviation of Figure 1 cell entries 1 to 36 inclusive, divided by their mean) is inversely related to level of anxiety. (Subjects who are selective in choosing what aspect-of-self they will disclose to which target-persons encounter fewer adjustment problems and consequently are less anxious.)

Hypotheses V, VI, and VII deal with self-disclosure and psychological differentiation. The perceptual dimension of field-dependence-independence, measured by means of the *Hidden Figures Test*, is commonly considered an index of psychological differentiation. It was argued in Chapter II, Section VII, that selectivity in self-disclosure may also be conceptualized as an indicator of psychological differentiation. Hypotheses V, VI, and VII state the relationship which is predicted to exist between measures of field-dependence-independence as an index of psychological differentiation and three specific measures of selectivity in self disclosure.

Hypothesis V

Selectivity with respect to target persons toward whom disclosures are made is positively related to psychological differentiation as indexed by the *Hidden Figures Test*.

Hypothesis VI

Selectivity with respect to aspect-of-self disclosed is positively related to level of psychological differentiation as indexed by the *Hidden Figures Test*.

Hypotheses VII

Selectivity in matching target with aspect-of-self disclosed is positively related to level of psychological differentiation as indexed by the *Hidden Figures Test*.

II. DEVELOPMENT OF THE ADOLESCENT SELF-DISCLOSURE INVENTORY

Considerations regarding response set. Psychologists have known for a number of years that various traits or patterns which

are not intended to be measured by a test may nevertheless contribute a considerable amount of variance to the test scores. Such inter-
 loping variables have generally been discussed under the headings of *response set* or *response style*. Two early articles by Cronbach (1946, 1950) have stimulated considerable systematic study of the topic.

The particularly troublesome response styles that are frequently discussed in the literature are:

1. *acquiescence*, or the tendency to agree, check true, say yes, etc., and
2. *social desirability*, or the tendency to give a popular or socially desirable response.

It may be argued that if an individual responds to a self-disclosure inventory with an acquiescence set, then such a set will systematically bias each of his subtotal scores. Although these subtotals may be spuriously high as a result of a tendency for the subject to say that he discloses more than he actually does, the differences between subtotals should nevertheless be meaningful. With one exception, the hypotheses of this study are not based upon subtotals *per se*, but rather upon variability among subtotals. Systematic response biases do not contribute to such variability. Consequently, any measurement error introduced by a "yea saying" response set may be expected to influence the results of hypothesis testing very little.

The way one presents himself on a test is but one facet of self presentation in general. The same stylistic consistencies that influence presentation of self on tests may also influence presentation of self in interpersonal relations. It is therefore postulated

that the tendency to say "yes" on a test parallels the tendency to say "yes" in a disclosure decision. Specifically, the individual who tends to say "yes" to a test item such as "Do you discuss your fears with your father?" will likewise tend to say "yes" to the subjective and situational question "Is it safe for me to discuss my fears with my father?" In other words, yea saying and self-disclosure may both stem from a common cognitive response tendency.

Although the agreeing response set is a contaminating factor in many tests, it may actually contribute valid variance to a self-disclosure inventory. The Couch and Keniston (1960) study of "yea sayers" and "nay sayers" lends empirical support to this hypothesis. Their results suggest that an agreeing response set is related to a tendency toward self-disclosure. For example, they found that yea sayers:

1. were "more voluble"
2. "spoke more easily about themselves"
3. "reacted in more obvious and overt ways to their moods"
4. "discussed sexual and aggressive feelings quite openly" (p. 167).

Nay sayers, on the other hand, were:

1. "reserved about themselves"
2. "required more questioning and probing" and were
3. "often defensive and embarrassed" (p. 167).

It would therefore appear that the agreeing response set may indeed contribute valid variance to measures of openness, revealingness, or self-disclosure. The evidence, however, does not constitute proof.

Therefore an attempt was made to eliminate, wherever possible, any artifact of the inventory which might contribute unnecessarily to this response set.

In this regard Adams and Kirby (1963) note that ambiguity of item meaning accentuates response set. An effort was therefore made to make items clear, concise, and readable in order to encourage responding to item content rather than from response set. Difficulty in selecting from among response alternatives also contributes to set responding. Hence Wylie (1961) advises against the use of forced choice items, even to control for social desirability.

In designing an inventory one must decide whether to include two, three, four, or more response options. Handyside (1960) states that the governing principle must be the extent to which the respondent can really discriminate in the answer he gives. Since inability to discriminate will accentuate response set, it was considered desirable to limit the response options for the items of the adolescent self-disclosure inventory to four in number, namely: n--never discuss, h--hardly ever discuss, s--sometimes discuss, and o--often discuss. These provisions are likely to encourage careful responding to item content.

The social desirability factor has been studied extensively, especially by Edwards (1957). He was able to show that probability of item endorsement on a personality test is linearly related to its social desirability scale value. We may thus expect the social desirability response set to operate in a self-disclosure inventory

to the extent that self-disclosure may be socially defined as desirable or undesirable.

The desirability or undesirability of revealing one's private apprehensions to others appears to be a personal evaluation rather than a social evaluation. Crowne and Marlowe (1964) describe a study by Salman (1962) in which he assessed attitudes toward personal revelation among college students. His results suggest that attitudes toward self-disclosure may be normally distributed. If this is the case, then a subject could hardly present himself in a "socially desirable" light on a self-disclosure inventory, simply because the socially desirable pattern of self-disclosure is not consensually defined. Items of a self-disclosure inventory, at any rate, are likely to be relatively neutral with respect to social desirability in comparison to items of a clinically diagnostic personality test.

Hathaway (1965) in concluding his discussion of response sets states:

No real evidence has been produced that response-set variance does not make a valid contribution to many clinically useful personality constructs.

Even if response sets determine portions of the scores on personality scales, these same sets often determine other behavior, and if one had completely subtle items fully corrected for response sets, one would have also eliminated some of the practical aspects of the personality measurement (p. 471).

Wherever possible, an effort was made to minimize the influence of response sets by careful construction of the inventory and by appropriate methods of administration. This study, however, assumes that any residual response set which may contribute to

score variance need not, of necessity, be a contaminating factor.

In order to investigate the influence of a social desirability set on the adolescent self-disclosure inventory, *The Crandall S D Scale* was administered to a sample of 64 grade nine students. The results from the Crandall scale were then correlated with the self-disclosure subtotal for each target, the self-disclosure subtotal for each aspect, and the total self-disclosure score for each individual. The results of this investigation are presented in Table I.

The Crandall S D Scale (Crandall, *et al.*, 1965) consists of items that are good culturally sanctioned things to say about oneself. The items are, nevertheless, probably untrue of most adolescents. The scale may thus be considered a measure of the subjects' tendency to respond from a social desirability set.

From Table I it may be observed that a significant correlation of $-.26$ was obtained between scores on the Crandall scale and extent of disclosure of socio-economic and status concerns provided by the adolescent self-disclosure inventory. No unequivocal interpretation of this result is possible.

Crandall *et al.*, (1965) argue that the *Crandall S D Scale* measures "need for approval." In contemporary western culture, prestige and approval, to a considerable extent, are based upon social and economic success. It is reasonable, therefore, that the individual with a high need for approval may actually tend to conceal his socio-economic and status concerns from others. The obtained correlation, therefore, need not indicate the operation of

TABLE I
RELATIONSHIP BETWEEN SELF-DISCLOSURE SCORES
AND SOCIAL DESIRABILITY

Self-disclosure Subtotals	Cell Fig. 1	Correlation with <i>Crandall S.D. Scale</i>
Disclosure to Mothers	37	.06
Disclosure to Fathers	38	.07
Disclosure to Friend (male)	39	-.19
Disclosure to Friend (female)	40	-.21
Disclosure to Teacher	41	.04
Disclosure to Counselor	42	-.08
Disclosure of Health Concerns	43	-.05
Disclosure of Self-centered Concerns	44	.01
Disclosure of Boy-Girl Relations	45	-.12
Disclosure of Home-Family Relations	46	-.12
Disclosure of School Concerns	47	-.08
Disclosure of Socio-Economic Concerns	48	-.26*
Total extent of self-disclosure	49	-.11

*Significant at the .05 level.

a social desirability response set, but rather may possibly be cited in support of the construct validity of the adolescent self-disclosure inventory.

Significant correlations were not obtained between scores on the Crandall scale and any other subscores of the adolescent self-disclosure inventory. It is therefore concluded that a social desirability set does not contribute substantially to score variance on the inventory.

Selection of aspects-of-self. It is desirable that items of a self-disclosure inventory deal with self-relevant or biographical data of some moment or concern to the subject. If the items do not have personal significance for the subject it is unlikely that they will arise as topics of conversation with anyone. Lack of discussion about irrelevant or insignificant content may index indifference rather than reticence or concealment.

The *SRA Youth Inventory* and the *Mooney Problem Check Lists* were developed from a study of manifest adolescent concerns as expressed in self-reports and clinical interviews. Items for the *SRA Youth Inventory* were selected from "many hundreds of items" (Remmers and Shimberg, 1949, p. 11). Mooney and Gordon's (1950) items were selected from a master list of over 5000 items. The items of these inventories are therefore considered highly instructive of the sorts of things which do concern adolescents and about which they do confide or communicate with others.

A perusal of these adolescent concerns suggests six categories or aspects-of-self which may be meaningfully inventoried with respect to self-disclosure and which closely parallel the classi-

fication of adolescent concerns employed by Mooney and Gordon (1950). It was thus considered desirable that an adolescent self-disclosure inventory should assess self-disclosure with respect to the following six aspects-of-self:

1. health and physical development
2. self-centered or ego-centric concerns
3. boy-girl relations
4. home and family life
5. school
6. economic and status concerns.

Selection of target-persons. Failure to disclose oneself to a particular kind of person may reflect a lack of opportunity rather than learned reticence. Hence, in selecting targets for a self-disclosure study, it is necessary to bear in mind the availability of particular kinds of persons as confidants. It may be assumed that the "typical" adolescent has an appreciable opportunity for communication with mothers, fathers, peers of opposite sex, peers of same sex, teachers, and counselors. These six categories of persons were selected, therefore, as suitable targets for a study of adolescent self-disclosure.

Although many adolescents have siblings, the age differential may be so great that meaningful communication of adolescent concerns is impossible. Moreover, siblings may live away from home and hence their availability as confidants cannot be assumed.

The continuous availability and the ease of availability of other potential targets is also restricted. For example, many families have not established regular attendance or allegiance to

a particular church and therefore clergymen may be virtually unavailable as targets. Opportunities for self-disclosure to medical doctors are likewise restricted. Community counseling services may be costly or their existence and services may be unknown. At any rate, their personnel workers are not readily available as confidants to all adolescents.

In designing a self-disclosure inventory it must be kept in mind that undue length resulting from the inclusion of many targets may cause the subject to tire, lose interest, and therefore respond carelessly. On the other hand, a sufficient number of targets must be included in order to provide for a measure of target selectivity in self-disclosure. A balance between these conflicting objectives must be obtained. With these considerations in mind, the previously listed six targets were selected.

Initial selection of items for the adolescent self-disclosure inventory. Remmers and Shimberg (1949) note that items of problem check lists fall into two main categories:

1. those indicative of personality disturbance, and
2. those which are essentially a matter of broad concern to adolescents.

Items of the first type are obviously inappropriate for self-disclosure inventories, since their relevance to the individual is contingent upon a lack of personal adjustment. In other words, whether or not the subject discusses such item content with other people may be more indicative of the presence or absence of personal problems, than of a general tendency to disclose or to conceal relevant biographical data.

Jourard and Lasakow (1958) in constructing their self-disclosure inventory, used ten items for each aspect-of-self. Plog (1965) used five items per topic area. Rickers-Ovsiankina (1956, 1958) deals with single item aspects. Although reliability theoretically increases with number of items (Gulliksen, 1950) a very long inventory, as previously noted, may cause the subject to respond carelessly, thus actually reducing reliability in practice. A maximum of eight items per aspect-of-self therefore has a rational basis for use with adolescents. With six aspects-of-self and six target-persons to be considered, an inventory consisting of eight items per aspect will require a total of 288 response choices. Although this is a large number, it must be noted that each response choice need not require the reading or re-reading of an item. Moreover, items are quite brief and reading time, therefore, minimal.

A goal of 48 carefully selected items, eight for each aspect-of-self, was set for the final version of the inventory. An attempt was made to secure 120 well considered items for the initial pool. Many of the items for this initial pool were developed by adapting items from available problem check lists making them appropriate for the desired purpose. In so constructing items, a deliberate attempt was made to minimize ambiguity and to maximize readability. Items which were indicative of personality disturbance as distinguished from items of "human interest" or general concern to "typical" adolescents were omitted from consideration.

Proposed items for the initial pool of 120 items were written on 3" x 5" index cards which were then sorted by ten judges consisting of teachers, counselors, and education students. The six "aspect" categories and an additional category designated "ambiguous" were provided to the judges. Items categorized as ambiguous by any of the judges were either reworded or discarded. Items which at least eight of the ten judges placed in the same aspect category were retained. Those which fell short of meeting this criterion were also re-edited or discarded. The initial pool of 120 items, therefore, consists only of items which all ten judges rate as unambiguous. Moreover, all 120 items are classified by at least eight out of ten judges as relevant to a particular aspect-of-self. The probability of a single item being assigned, by chance, to a given category eight out of ten times is $P = C(10,8)(1/7)^8(\frac{6}{7})^2 < .00001$. The initial pool of items may thus be considered to have a measure of content validity (Anastasi, 1961).

Item analysis. A self-disclosure inventory consisting of the initial pool of 120 items was then administered to a sample of 97 Grade IX students.

For the purposes of item analysis, the six target-persons were grouped into three classes: parents, friends, and school professionals. The correlation between item scores for a target class and total aspect scores for a target class was then found. Cronbach (1960) refers to such an item-test correlation as a *discrimination index*, and suggests three reasons why such indices may be low:

1. nearly everyone answers the item in the same way,
and hence it fails to distinguish among subjects;

2. the item is ambiguous and confusing;
3. the item measures something different from what most of the other items measure.

A final selection of eight items per aspect-of-self from the initial pool of 120 items on the basis of three discrimination indices (one for each target class) was then made. This procedure of item selection tends to:

1. increase item discrimination among subjects;
2. increase internal consistency of items;
3. eliminate confusing and ambiguous items.

Discrimination indices for the 48 selected items are provided in Appendix I.

The final form of the adolescent self-disclosure inventory.

The final form of the adolescent self-disclosure inventory consists of 48 carefully selected items—eight for each of the six aspects-of-self inventoried. Selected items were arranged randomly to form the inventory.

In responding to the inventory, the subject is required to read each item and circle one of a set of four response options for each target-person. The response options are:

- n - for *never* discuss the topic with the target,
- h - for *hardly ever* discuss the topic with the target,
- s - for *sometimes* discuss the topic with the target,
- o - for *often* discuss the topic with the target.

The four response options are arbitrarily assigned weights of 1, 2, 3, and 4 respectively in order to form a Likert-type interval scale. A subject's total disclosure score for a given aspect-of-self to a given target-person, therefore, may vary from eight to thirty-two.

A score of eight indicates that the subject never discusses any of the items of a particular aspect-of-self with a particular target-person. In contrast, a score of 32 indicates that the subject frequently discusses all items of the inventory regarding that aspect-of-self with the target-person in question.

Similarly, a subject's total disclosure score for all aspects-of-self to a given target-person may vary from 48 to 192, and a subject's grand total disclosure score for all aspects-of-self to all target-persons may vary from 288 to 1152.

After the final item selection was made, the adolescent self-disclosure inventory was assessed for reading ease with the use of a *Flesch Readability Scale* supplied by the Reading Clinic of the University of Alberta. An estimated reading difficulty level of Grade Six was found. The human interest level was rated as "dramatic." These desirable factors are likely to encourage careful and accurate responding.

The reliability of the adolescent self-disclosure inventory.

Reliability is especially significant for self-reports since it relates to the validity of self-reports in two ways:

1. The validity of any instrument cannot exceed the square root of its reliability (Cronbach, 1960).
2. For self-reports where external criteria are frequently unavailable to compute an independent validity coefficient, the validity of the report is sometimes considered adequately indexed by the reliability coefficient (Remmers and Shimberg, 1949).

The reliability of the adolescent self-disclosure inventory

was assessed by two methods:

- a) The *test-retest* method.
- b) The *split-half* method (odd-even items for each aspect scale, corrected by use of the Spearman-Brown formula).

Table II presents test-retest reliability coefficients for a sample of 50 adolescents and a time interval between test administrations of four weeks. All coefficients are significant at the .01 level. The reliability coefficients for aspect and target subtotals range from .73 to .92. These coefficients compare favorably with similar coefficients obtained for well known and widely used psychometric instruments. Anastasi (1961) reports a median retest reliability of .79 for the *Kuder Preference Record*. She also reports that retests after a one-month interval yielded reliabilities between .77 and .93 for the six scales of the *Allport-Vernon-Lindzey Study of Values*.

Test-retest reliability coefficients are in effect *stability coefficients*. The obtained correlations indicate that the adolescent self-disclosure inventory does reliably measure some construct which remains relatively stable over a period of one month.

Split-half (odd-even) reliability coefficients were found using a sample of 296 grade nine students. Table III presents these coefficients corrected by use of the Spearman-Brown formula (see Ferguson, 1966, p. 378). Uncorrected correlation coefficients may be found in Appendix III.

Both test-retest and split-half reliability coefficients for the adolescent self-disclosure inventory are encouragingly

TABLE II
TEST-RETEST RELIABILITY COEFFICIENTS FOR THE
ADOLESCENT SELF-DISCLOSURE INVENTORY

ASPECTS-OF-SELF TARGET- PERSON	Health and Phys. Dev.	Self-centered Concerns	Boy-Girl Relations	Home and Family Relations	School	Money and Status Concerns	TOTALS
Mother	.79	.77	.75	.81	.67	.74	.82
Father	.85	.78	.86	.81	.81	.77	.87
Friend (male)	.86	.81	.85	.82	.84	.91	.92
Friend (female)	.82	.82	.81	.85	.90	.87	.90
Teacher	.82	.63	.38	.46	.68	.56	.77
Counselor	.67	.75	.61	.76	.81	.61	.83
TOTALS	.81	.76	.73	.78	.78	.84	.84

TABLE III

SPLIT-HALF RELIABILITY COEFFICIENTS FOR THE ADOLESCENT
SELF-DISCLOSURE INVENTORY CORRECTED BY USE OF
THE SPEARMAN-BROWN FORMULA

ASPECTS-OF-SELF TARGET- PERSON	Health and Phys. Dev.	Self-centered concerns	Boy-Girl Relations	Home and Family Relations	School	Money and Status Concerns	Totals
Mother	.83	.90	.89	.83	.86	.75	.96
Father	.86	.89	.85	.82	.89	.77	.96
Friend (male)	.85	.90	.89	.86	.90	.89	.97
Friend (female)	.88	.92	.90	.91	.91	.87	.98
Teacher	.84	.83	.72	.86	.85	.88	.96
Counselor	.87	.91	.84	.94	.94	.85	.98
TOTALS	.89	.92	.89	.88	.92	.83	.97

high, which suggests that the inventory is a reliable instrument for research purposes.

The validity of the adolescent self-disclosure inventory.

Perhaps the greatest difficulty encountered in self-disclosure studies is the validation of the self-disclosure inventory. Self-report techniques are not easily validated. Nevertheless Handyside (1960) argues that we cannot abandon such techniques in the pursuit of psychological knowledge, but must concentrate upon minimizing the sorts of pressures which cause subjects to bias their responses. Accordingly, an effort was made, in the administration of the inventory, to set subjects at ease, to create a good rapport, or to establish a "back region" atmosphere in which subjects might safely disclose themselves on the inventory. It was emphasized that scores were obtained for research purposes only and that they would be kept strictly confidential. Although it was necessary that subjects identify their protocols, there is some evidence to indicate that when confidentiality is assured lack of anonymity has little effect upon a subject's responses (Edwards, 1957).

Wylie (1961) observes that most investigators proceed to use self-report instruments without any criteria for establishing validity. Lubin and Harris (1964) state that "although self-disclosure seems to hold considerable promise as a clinical-social construct, the literature contains no evidence of the validity of the instrument" (p. 77). As previously noted, in the absence of external criteria for validation of self-reports the reliability of the instrument is often considered to adequately index the validity.

A deliberate attempt was made to provide for content validity in the design of the adolescent self-disclosure inventory. Item selection was explicitly rationalized for this purpose. If a "conceptual universe" of items regarding each aspect-of-self is postulated, it may be considered that the items selected are to some degree representative of that universe of items. Ten judges were used to evaluate whether or not a given item did belong to such a conceptual universe. The discrimination indices for each item constitutes a further check on this requirement.

Although items have passed through several editions and selections their content ultimately is derived from a vast pool of items, numbering well over 5000, which originally entered into construction of problem check lists.

Crowne and Marlowe (1964) have found that "revealingness" is a meaningful dimension on which to evaluate projective test protocols. As a dimension of personality, this construct is conceptually similar to self-disclosure.

The Rotter Incomplete Sentence Blank was therefore scored for revealingness in order to provide criterion scores for investigating the construct validity of the adolescent self-disclosure inventory. The Rotter instrument consists of 40 sentence stems each of which the respondent must complete to express his thoughts and feelings. Three judges independently scored Rotter protocols for a sample of 60 grade nine students in the following manner. Each sentence completion was assigned a revealingness score based upon a three point scale.

- a) One point assigned for superfluous, defensive, or evasive completions; incompleted sentences; simple definitions and periphrases.
- b) Two points assigned for completed, stereotypical pre-dominately cognitive but modestly revealing responses.
- c) Three points assigned for richly revealing or emotionally laden responses (*e.g.*, expressions of guilt, fear, hostility, love, loneliness, or anxiety); disclosure of stigmata or socially undesirable attributes.

Scores assigned by the three judges were pooled to arrive at a composite score for each subject. These composite scores were then subjected to a McCall T-Score transformation. Inter-rater reliability coefficients of .83, .77, and .87 were obtained for the three judges. Correlations between these revealingness scores and various subscores of the adolescent self-disclosure inventory are presented in Table IV.

Since Rotter protocols yield direct measures of personal revealingness in a standardized situation rather than measures of reported disclosure in unique life situations, the correlations presented in Table IV provide evidence that, to an appreciable extent, the self-disclosure inventory does measure the revealingness construct. These correlations may, at best, appear modest as validity coefficients; however, several considerations must be kept in mind.

The median correlation between scores for disclosure to different target-persons on the same 48 items of the adolescent self-disclosure inventory is only .34. This observation suggests that revealingness (disclosure) is highly dependent upon target-person,

TABLE IV
CORRELATIONS BETWEEN ROTTER REVEALINGNESS
SCORES AND VARIOUS SUBSCORES OF THE
ADOLESCENT SELF-DISCLOSURE INVENTORY

Disclosure to mothers	.52**
Disclosure to fathers	.22*
Disclosure to friends (male)	.23*
Disclosure to friends (female)	.40**
Disclosure to teachers	.38**
Disclosure to counselors	.19
 Total Self-Disclosure	 .52**
 Disclosure of health concerns	 .57**
Disclosure of self-centered concerns	.39**
Disclosure of boy-girl relations	.33**
Disclosure of home-family relations	.46**
Disclosure of school concerns	.48**
Disclosure of economic and status concerns	.46**

*significant at .05 level

**significant at .01 level

and that a standardized measure of revealingness, therefore, must not be expected to correlate highly with disclosure scores to any or all target-persons. Moreover, the median correlation obtained between disclosure scores for various aspects-of-self was only .68. From this observation it is concluded that extent of disclosure is highly dependent upon aspect or topic involved. The modest coefficients reported in Table IV, therefore, are considered to be substantial indication of the construct validity of the inventory.

III. OTHER INSTRUMENTS USED IN THE STUDY

The IPAT Self Analysis Form. *The IPAT Self Analysis Form* was developed by Cattell and Scheier to provide a measure of anxiety. It consists of 40 items carefully selected from four to five thousand item candidates. By determining the multiple correlation of the factor loadings of all items, the construct validity of the *IPAT Self Analysis Form* is estimated to be +.85 (Cattell *et al.*, 1961). Moreover, these authors document evidence of substantial correlation between IPAT anxiety scores and physiological behavior, psychiatric evaluation, and laboratory tests of anxiety (Cattell *et al.*, 1963). Reliability coefficients varying from .80 to .93 have been reported.

The authors observe that in factor analytic studies of personality dimensions "anxiety components are the *only* ones which are typically high for all clinical groups. Other factors are high for some clinical groups but low for others. Consequently the authors conclude that low anxiety is "an excellent operational definition of mental health" (Cattell *et al.*, 1963, p.14).

Cohen (1965) in a review of *The IPAT Self Analysis Form* for the *Sixth Mental Measurements Year Book*, describes the scale as the "mature fruit of a third of a century of both methodological and clinically sophisticated large-scale factor analytical research." As an over-all measure of anxiety or *adjustment* Cohen believes that the IPAT scale is without peer or competitor.

The forty items of the IPAT scale are divided into two equal sets of twenty. Part A consists of the more subtle items and purports to measure "covert anxiety." Part B consists of less subtle items and in turn purports to measure overt or manifest anxiety.

The Hidden Figures Test. *The Hidden Figures Test—Cf-I* consists of 32 complex patterns in which a simple geometric figure is embedded. At the top of each page of the test booklet, the embedded figures are reproduced and assigned a letter designation. The subject is required to discover which of five alternative figures is embedded in each of the more complex patterns. The test is divided into two parts. A 15-minute time limit was used for each part. The subject's score consists of the total number of embedded figures identified in the complex item patterns within the time limit.

Nulty¹ (personal communication) reports reliability estimates based on correlations between Part 1 and Part 2 as follows:
 .88 (N=1107), .60 (N=233), .58 (N=99), .72 (N=46).

¹Francis X. Nulty, Coordinator, Office of Special Tests, E.T.S.

Data collected by the Witkin group and reported in a personal communication from Educational Testing Service provide the following indications with respect to construct validity:

- a) Correlation between Cf-1 and the Rod and Frame Test:
.50 (N=46).
- b) Correlation between Cf-1 and psychological differentiation as indexed by figure drawing: .40 (N=89).
- c) Correlation between Cf-1 and Witkins Individual Embedded Figures Test: .51 (N=46).

The Hidden Figures Test—Cf-I may be regarded as a promising experimental instrument currently used in a wide variety of research applications.

IV. THE SAMPLE

A sample of 271 Grade IX students from the Edmonton public schools was used for hypothesis testing. An effort was made to assure that the schools included in the sample were reasonably representative of the Edmonton public school population as a whole. Dr. J. Patterson, Director of Counseling Services for the Edmonton Public School Board, provided guidance in the selection of the sample and assisted in securing the cooperation of the schools involved.

The sample consisted of 131 girls and 140 boys. The average age was 15 years, 3 months, with a standard deviation of 11 months.

The average ability of the sample as assessed by the *School and College Ability Test*, based upon Province of Alberta norms for

all Grade IX students writing departmental examinations in June 1967, was 4.9 stanine points. This does not differ significantly from the provincial mean of 5.0 stanine points.

Similarly, the average aggregate achievement score for the sample, based upon six academic departmental examinations, was 5.0 stanine points, which is identical to the provincial mean. It may be concluded, therefore, that the sample is representative of the provincial population of Grade IX students insofar as ability and achievement are concerned.

Sex differences of the sample with respect to age, ability, and achievement were very small and insignificant.

VI. COLLECTION AND ANALYSIS OF DATA

Data collection. After the sample was selected, the school counselor in each of the represented schools was interviewed and the research project described to him. He was requested to assist in orienting the students to their role in the project by informing them that a graduate student from the University of Alberta would be giving them a series of tests and inventories. He was also asked to solicit their full cooperation, and to emphasize that all data were collected for research purposes only and that anonymity would be assured. To further extend the cooperation and good will of the sample, participating students were advised that they would receive by mail a personal report of their performance on the *Hidden Figures Test* and a summary of some of the most interesting findings resulting from the study.

A concerted effort was made to assure that all tests and

inventories were administered under relatively standardized conditions. Tests were administered by Mr. L. Ferguson, doctoral student at the University of Alberta, and by the investigator. In each case an undergraduate student served as proctor, checking to assure that students understood and followed directions. The proctor also assisted in discouraging attempts to discuss items or to respond collectively.

Choice of Selectivity Indices. For the purpose of hypothesis testing it is necessary to employ some index or measure of the selectivity which subjects exercise in their disclosure behavior. It has been noted previously that some people disclose personal information almost indiscriminately. Others, by contrast, are considerably more selective in what they disclose or to whom they disclose.

The standard deviation is a widely used measure of variability and was initially considered as an index of selectivity in disclosure patterns. However, the standard deviation is not entirely independent of variate size. If each number of a set is multiplied by some constant, the standard deviation is also multiplied by that constant (see Ferguson, 1966, p. 71).

To assure that the chosen index of selectivity would reflect *selectivity* in disclosure *per se* rather than extent of disclosure, the standard deviation divided by the mean was employed. An illustration and rationale for this choice follows.

Consider these hypothetical target subtotals for two subjects, A and B.

	A	B
Disclosure to mothers	60	120
Disclosure to fathers	50	100
Disclosure to same sexed friend	70	140
Disclosure to opposite sexed friend	40	80
Disclosure to teachers	10	20
Disclosure to counselors	10	20
Total	240	480
Mean	40	80
Standard Deviation	23.09	46.18
δ/\bar{x}	.577	.577

It may be argued that A and B demonstrate the same pattern of selectivity in their disclosure to various targets. In each case, identical proportional amounts of the total disclosure score is associated with a given target-person. The major difference between the disclosure patterns is that B is twice as revealing or disclosing as A. The standard deviation as an index of selectivity, here, would suggest that B is twice as selective in his disclosure to various target-persons as A. This inference is clearly not in line with the intended meaning of selectivity in this study. The standard deviation divided by the mean, however, is equivalent for A and B and is therefore a more appropriate index. Selectivity manifest in disclosure patterns thus was operationally defined in terms of the ratio of the standard deviation to the mean of disclosure subscores.

Analysis of data. The procedure followed in hypothesis-testing is described below.

Hypothesis I

1. IPAT anxiety raw scores were transformed to normalized standard scores with mean of 50 and standard deviation of 10. The product moment correlation between these transformed anxiety scores

and the total self-disclosure scores from the adolescent self-disclosure inventory was found and tested for significance.

2. Self-disclosure scores were then subjected to a stanine transformation. Assuming that revealingness or disclosure is normally distributed, this transformation divides the sample into nine groups which may be treated as equal steps along an ordered self-disclosure scale. The correlation ratio descriptive of the regression of anxiety on self-disclosure was computed using an analysis of variance program to obtain the appropriate sums of squares and by applying formula 16.6.2, p. 547 of Hays (1963).

3. Similarly, anxiety scores were subjected to a stanine transformation to divide the sample into another nine groups that may be treated as constituting equal steps along an ordered anxiety scale. The correlation ratio descriptive of the regression of total self-disclosure on anxiety was then found.

4. Mean anxiety scores were then plotted graphically against transformed self-disclosure scores. Mean self-disclosure scores were also plotted graphically against transformed anxiety scores.

5. The two correlation ratios were then tested for significance using formula 15.21, p. 249 of Ferguson (1966).

6. Where a significant correlation ratio was obtained the difference between this ratio and the square of the product moment correlation coefficient was used to assess nonlinearity of regression using the procedure described by Guilford (1965, p.314).

7. If a significant departure from linearity had been

obtained, an attempt would have been made to describe the basic form of the observed relationship by means of trend analysis using orthogonal components as described by Winer (1962, p.70).

Hypothesis II

1. The product moment correlation coefficient between indices of selectivity with respect to target persons and anxiety scores was found and tested for significance.

2. Correlation ratios descriptive of the regression of target selectivity on anxiety and anxiety on target selectivity were then found using the same procedure employed for testing Hypothesis II.

3. These correlation ratios were tested for significance.

4. Mean anxiety scores were plotted against transformed target selectivity scores.

5. If significant correlation ratios had been obtained, tests for nonlinearity of regression and trend analysis would have been applied.

Hypotheses III and IV

These hypotheses were tested in using a procedure equivalent to that used for testing Hypothesis II.

Hypothesis V

1. Raw scores obtained from the *Hidden Figures Test* were transformed to normalized standard scores with mean of 50 and standard deviation of 10. The product moment correlation coefficient between these transformed *Hidden Figures Test* scores and indices of selectivity with respect to target persons was then found and

tested for significance.

2. Correlation ratios were computed to detect the possible presence of a nonlinear relationship.

Hypotheses VI and VII

These hypotheses were tested using the same procedure as that employed in testing Hypothesis V.

CHAPTER V

RESULTS

I. RESULTS OF HYPOTHESIS TESTING

Hypothesis I. A product moment correlation coefficient of .20 ($p < .01$) was found between anxiety scores and total self-disclosure scores. Although this observed relationship is rather small, it is significant and indicates that high anxiety tends to be associated with high self-disclosure whereas low anxiety tends to be associated with low self-disclosure. Figure 5 presents a graph of mean anxiety scores for groups of subjects having the same stanine self-disclosure scores. A correlation ratio of $n_{yx}^2 = .05$ ($F = 1.88$, $p = .06$) which is descriptive of the prediction of anxiety scores on the basis of self-disclosure scores was obtained. The failure of this correlation ratio to reach significance is perhaps best explained by the fact that the obtained relationship between anxiety and self-disclosure is small and that a great deal of information is lost by grouping self-disclosure scores into nine stanine categories. An analysis of variance indicates that none of the observed differences between mean anxiety scores represented in Figure 5 are significant at the .05 level.

Mean self-disclosure scores for groups of subjects having the same stanine anxiety scores are plotted graphically in Figure 6. A correlation ratio of $n_{yx}^2 = .06$ ($F = 2.13$, $p = .03$) was obtained. This significant correlation ratio indicates that the prediction of self-disclosure scores can be improved significantly beyond chance

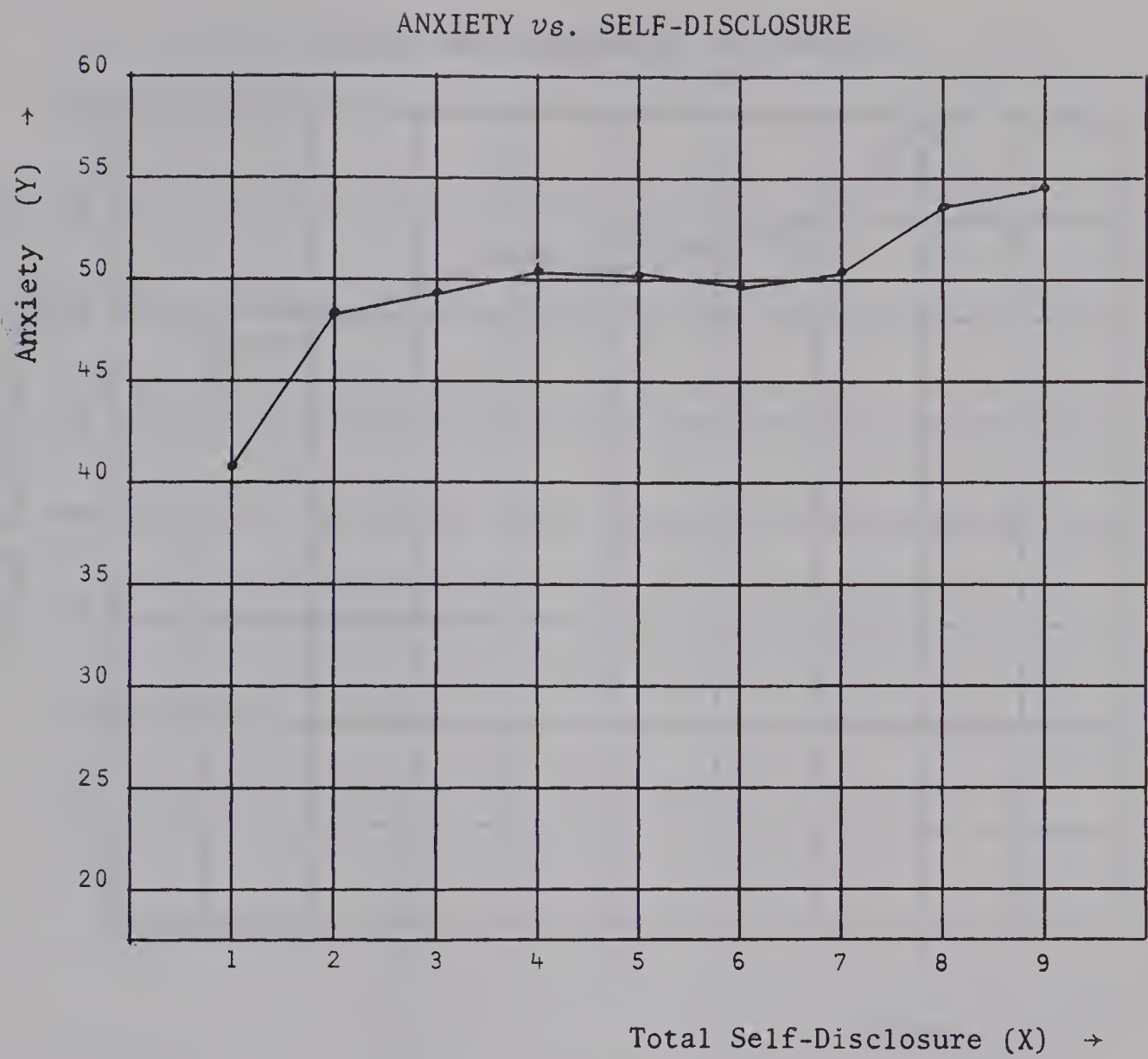


FIGURE 5

Tabulated data:

Self-disclosure (in stanines)	Mean anxiety (in T-scores)
1	41.6
2	47.6
3	49.0
4	50.5
5	50.3
6	49.9
7	50.4
8	53.6
9	54.9

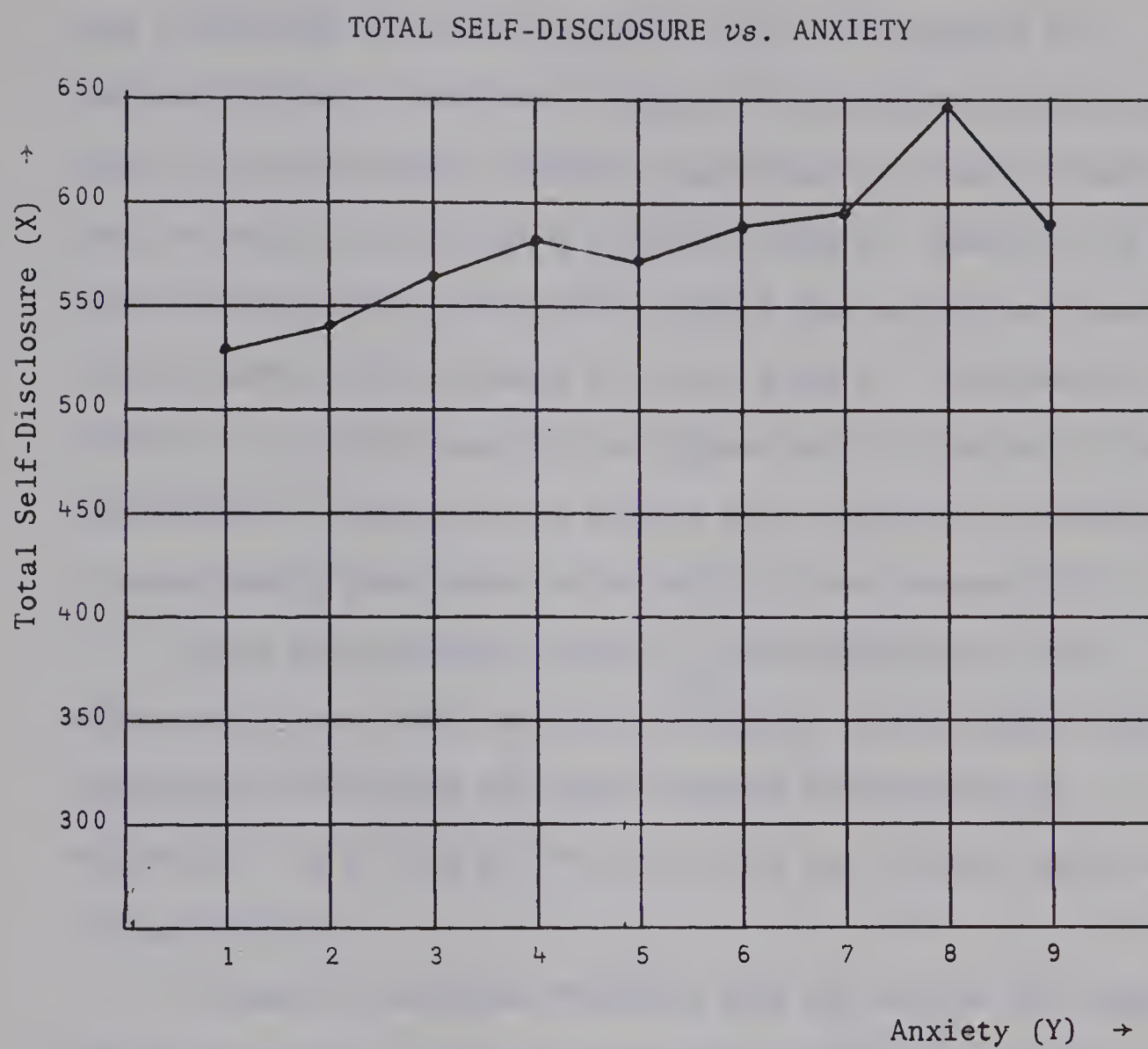


FIGURE 6

Tabulated data:

Anxiety (in stanines)	Self-Disclosure (raw scores)
1	527
2	538
3	564
4	572
5	565
6	579
7	595
8	649
9	578

from a knowledge of stanine anxiety scores. An analysis of variance followed by t-tests, indicates that the mean self-disclosure score for anxiety group 1 differs significantly at the .05 level from the mean self-disclosure score for group 8. However, the mean self-disclosure score for anxiety group 8 does not differ significantly from the mean self-disclosure score for group 9. The observed decline in self-disclosure at the highest level of anxiety is not statistically significant and caution must therefore be exercised to avoid making inferences on the basis of this observation.

Since the correlation ratio n_{xy}^2 was significant, the difference between this ratio and the square of the product moment correlation coefficient was used to assess nonlinearity of regression. An F-ratio of .85, df (7,262) was obtained which was not significant.

It must be concluded therefore that the data do not support Hypothesis I which states that a curvilinear U-shaped relationship exists between anxiety and self-disclosure. The evidence does suggest, however, the existence of a small positive linear relationship between anxiety and total self-disclosure.

Hypothesis II. A product moment correlation coefficient of .13 ($p < .05$) was found between anxiety scores and target selectivity scores. This small but significant relationship indicates a tendency for high anxiety to be associated with greater target selectivity. The finding is exactly opposite to that predicted by Hypothesis II which states that "selectivity with respect to target-persons toward whom disclosures are made is inversely related to level of anxiety."

Mean anxiety scores for groups of subjects having the same target selectivity stanine scores are plotted graphically in Figure 7. A correlation ratio of $n_{yx}^2 = .42$ ($F = 1.02$, $p = .42$) which is descriptive of the prediction of anxiety scores on the basis of target selectivity stanine scores was obtained. An analysis of variance indicates that none of the differences between the mean anxiety scores for these groups are statistically significant.

A correlation ratio $n_{xy}^2 = .03$ ($F = .92$, $p = .50$) which is descriptive of the prediction of target selectivity scores on the basis of anxiety stanine scores was obtained. Again, none of the differences between mean target-selectivity scores for the various anxiety groups were significant.

On the basis of the significant product moment correlation coefficient between anxiety and target selectivity Hypothesis II must be rejected. The data support an alternative hypothesis that a small positive linear relationship exists between anxiety and target selectivity.

Hypothesis III. A product moment correlation coefficient of $-.02$ which is not significant was found between anxiety scores and aspect selectivity scores. The data provide no evidence for a linear relationship between anxiety and aspect selectivity. Hypothesis III, which states that "selectivity with respect to aspect-of-self disclosed is inversely related to anxiety," is therefore not supported by the data.

Mean anxiety scores for groups of subjects having the same aspect selectivity stanine scores are plotted graphically in Figure 8.

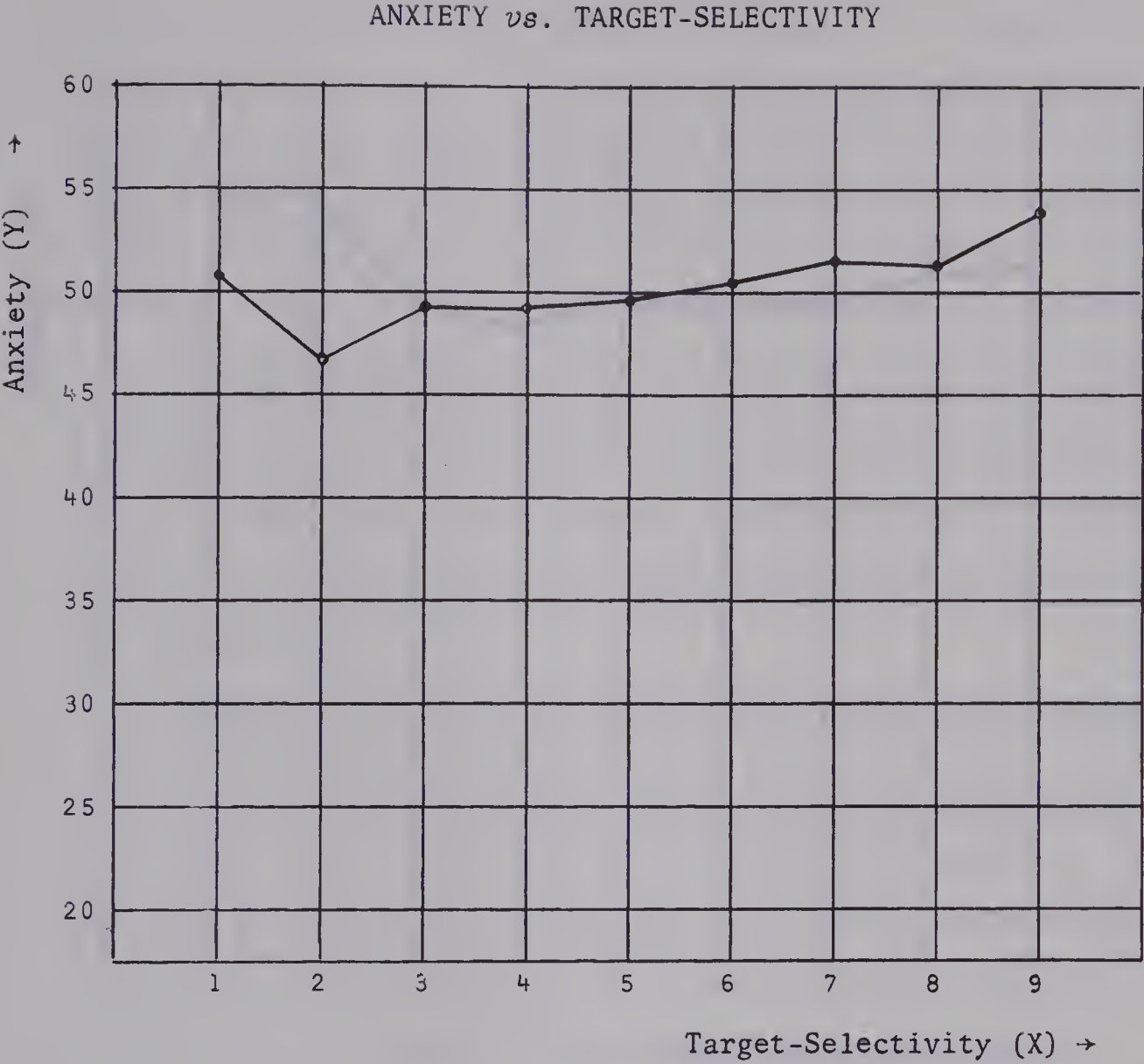


FIGURE 7

Tabulated data:

Target-selectivity (in stanines)	Anxiety (in T-scores)
1	50.8
2	46.7
3	48.9
4	48.9
5	49.3
6	50.3
7	52.5
8	52.3
9	53.9

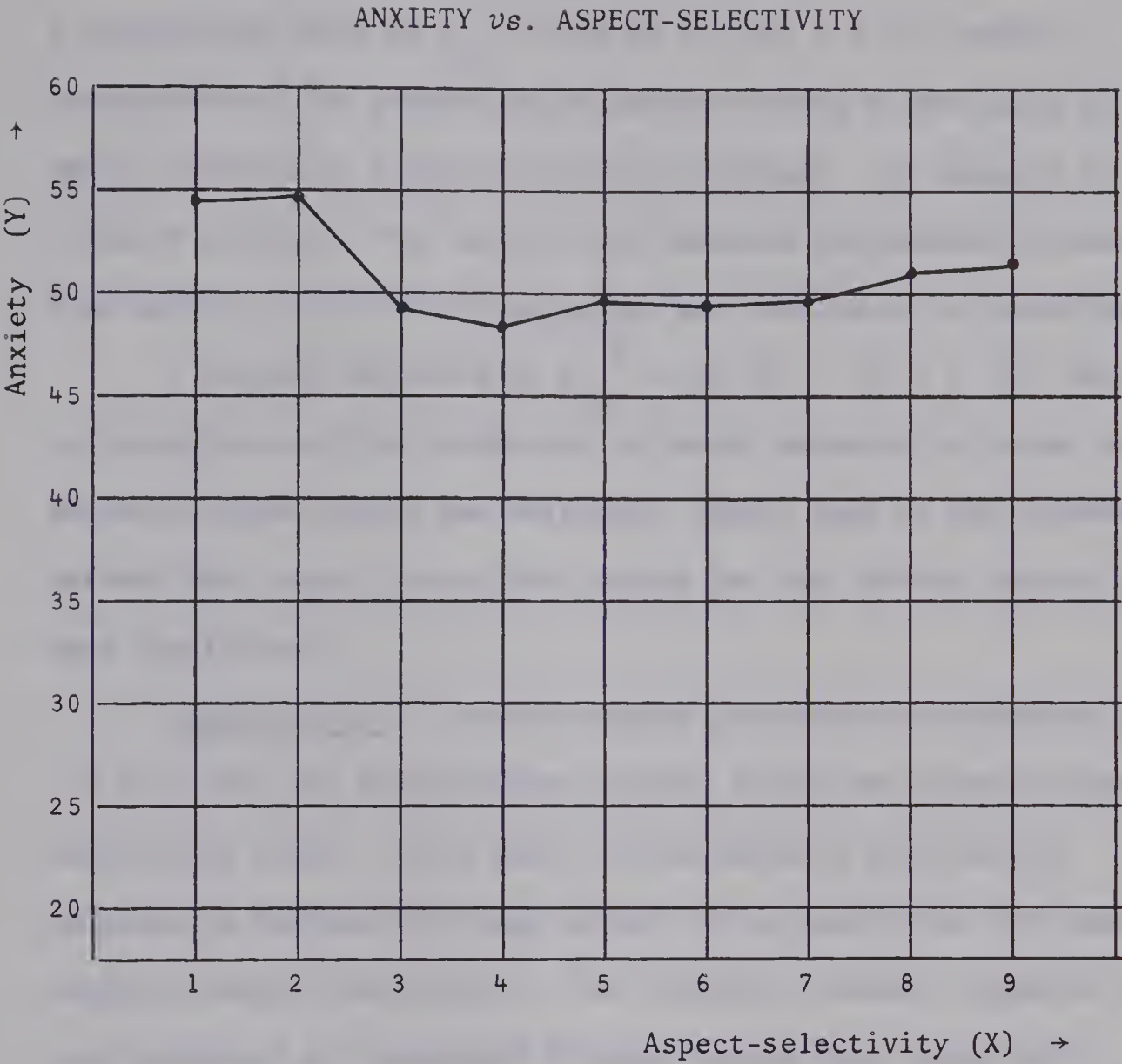


FIGURE 8

Tabulated data:

Aspect Selectivity (in stanines)	Anxiety (in T-scores)
1	54.6
2	54.8
3	48.5
4	47.8
5	50.0
6	49.3
7	49.9
8	51.6
9	51.8

A correlation ratio of $n_{yx}^2 = .04$ ($F = 1.35$, $p = .22$) which is descriptive of the prediction of anxiety scores on the basis of aspect selectivity stanine scores was obtained. An analysis of variance indicates that none of the observed differences between mean anxiety scores for these groups are statistically significant.

A correlation ratio of $n_{xy}^2 = .02$ ($F = .72$, $p = .67$) which is descriptive of the prediction of aspect selectivity scores on anxiety stanine scores was obtained. Again, none of the differences between mean aspect selectivity scores for the various anxiety groups were significant.

Hypothesis IV. A product moment correlation coefficient of .15 ($p < .05$) was found between anxiety scores and target-by-aspect selectivity scores. This small but significant relationship indicates a tendency for high anxiety to be associated with greater target-by-aspect selectivity. The finding is exactly opposite to that predicted by Hypothesis IV which states that "selectivity with respect to matching target with aspect-of-self disclosed is inversely related to level of anxiety."

Mean anxiety scores for groups of subjects having the same target-by-aspect selectivity stanine scores are plotted graphically in Figure 9.

A correlation ratio $n_{yx}^2 = .04$ ($F = 1.28$, $p = .26$) which is descriptive of the prediction of anxiety scores on the basis of target-by-aspect selectivity stanine scores was obtained. An analysis of variance indicates that none of the observed differences between the mean anxiety scores for these groups are statistically significant.

ANXIETY *vs.* TARGET-BY-ASPECT SELECTIVITY

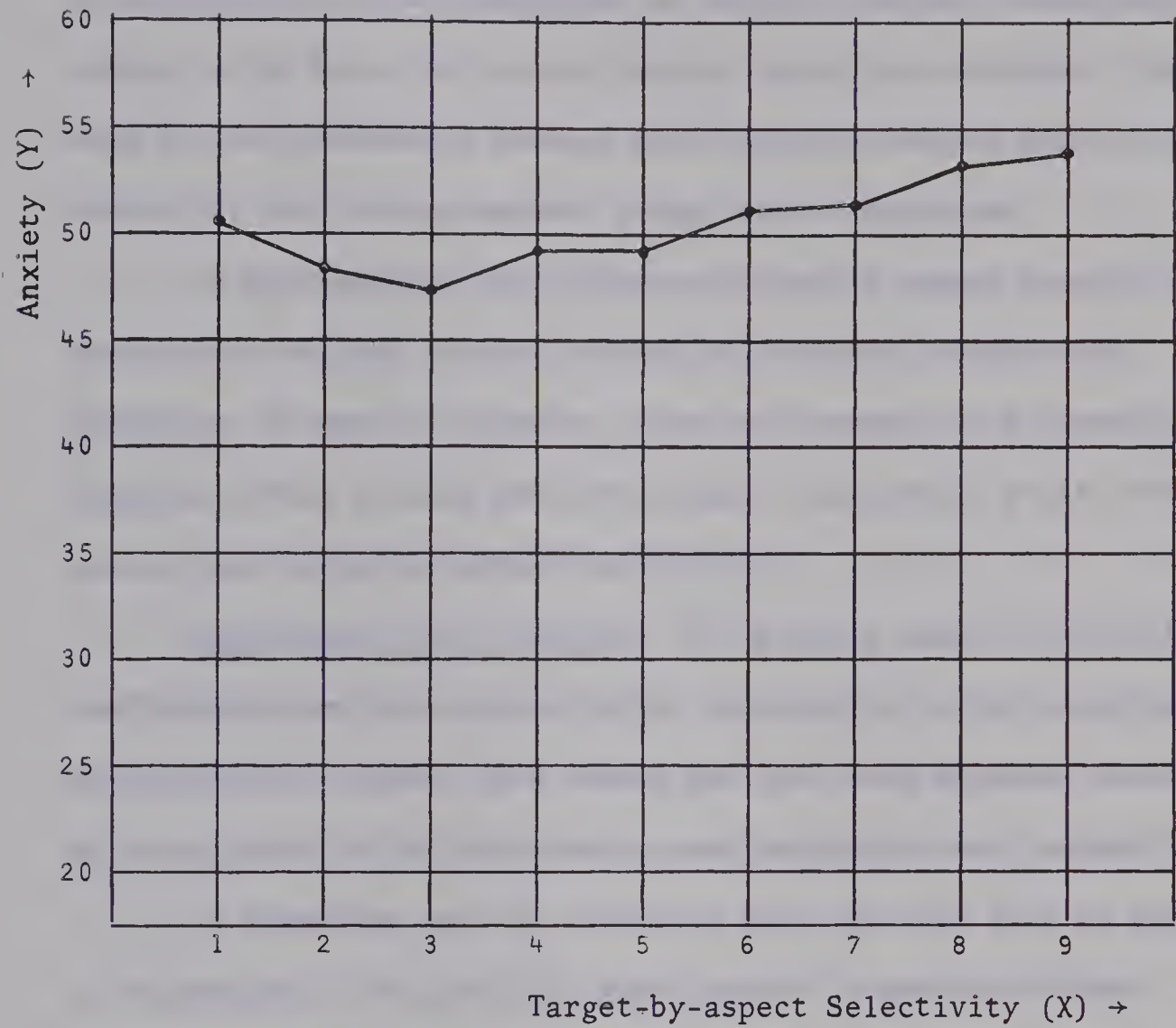


FIGURE 9

Tabulated data:

Target-by aspect Selectivity (in stanines)	Anxiety (in T-scores)
1	50.7
2	48.0
3	47.3
4	49.4
5	49.0
6	51.4
7	51.7
8	53.8
9	53.9

A correlation ratio of $n_{xy}^2 = .03$ ($F = .92$, $p = .51$) which is descriptive of the prediction of target-by-aspect selectivity scores on the basis of stanine anxiety scores was obtained. Again, none of the differences between mean target-by-aspect selectivity scores for the various anxiety groups were significant.

On the basis of the significant product moment correlation coefficient between anxiety and target-by-aspect selectivity, Hypothesis IV must be rejected. The data support an alternative hypothesis that a small positive linear relationship exists between anxiety and target-by-aspect selectivity.

Hypotheses V, VI, and VII. All product moment correlation coefficients and correlation ratios descriptive of the relationship between *Hidden Figures Test* scores and the three separate indices of selectivity in self-disclosure were negligible and insignificant.

It therefore must be concluded that the data give no support to Hypotheses V, VI, and VII, which predict a positive linear relationship between the various indices of selectivity in self-disclosure and general psychological differentiation as indexed by *Hidden Figures Test* scores.

II. ANCILLARY FINDINGS

This section presents some subsidiary findings descriptive of the disclosure patterns of the sample. The results reported do not constitute part of the research design for hypothesis testing, but are nevertheless likely to be of considerable interest to the practising counselor. The findings also permit several comparisons between the present study and the self-disclosure studies reviewed in Chapter III.

Total self-disclosure. For the 131 girls in the sample, the mean of total self-disclosure scores was 585.3 and the standard deviation was 96.7. For the 140 boys, the mean was 565.4 and the standard deviation was 108.5. The variances do not differ significantly at the .05 level; hence the conventional t-test was used to test for the significance of a difference between means. A t-statistic of 1.601, which is not significant, was obtained. Thus, it may not be concluded that adolescent girls disclose more than adolescent boys.

It will be recalled that Jourard and Lasakow (1958) found that female college students disclose significantly more than male college students. Plog (1965), on the other hand, using a different instrument, found no significant difference between total self-disclosure scores for men and women in his American or German samples.

Self-disclosure to target-persons. Figure 10 presents in graphic form the mean of self-disclosure scores to various targets, separately for boys and girls. Target-persons are arranged along the horizontal axis according to their popularity as confidants. The profile for boys and girls is strikingly similar and their preferential ordering of targets is identical. Adolescents disclose most to friends of the same sex, then to mothers, fathers, friends of the opposite sex, school counselors, and teachers.

The mean of self-disclosure scores to various targets is also presented in Table V. As many comparisons between means can

TOTAL SELF-DISCLOSURE TO VARIOUS TARGETS
SEPARATELY, FOR BOYS AND GIRLS

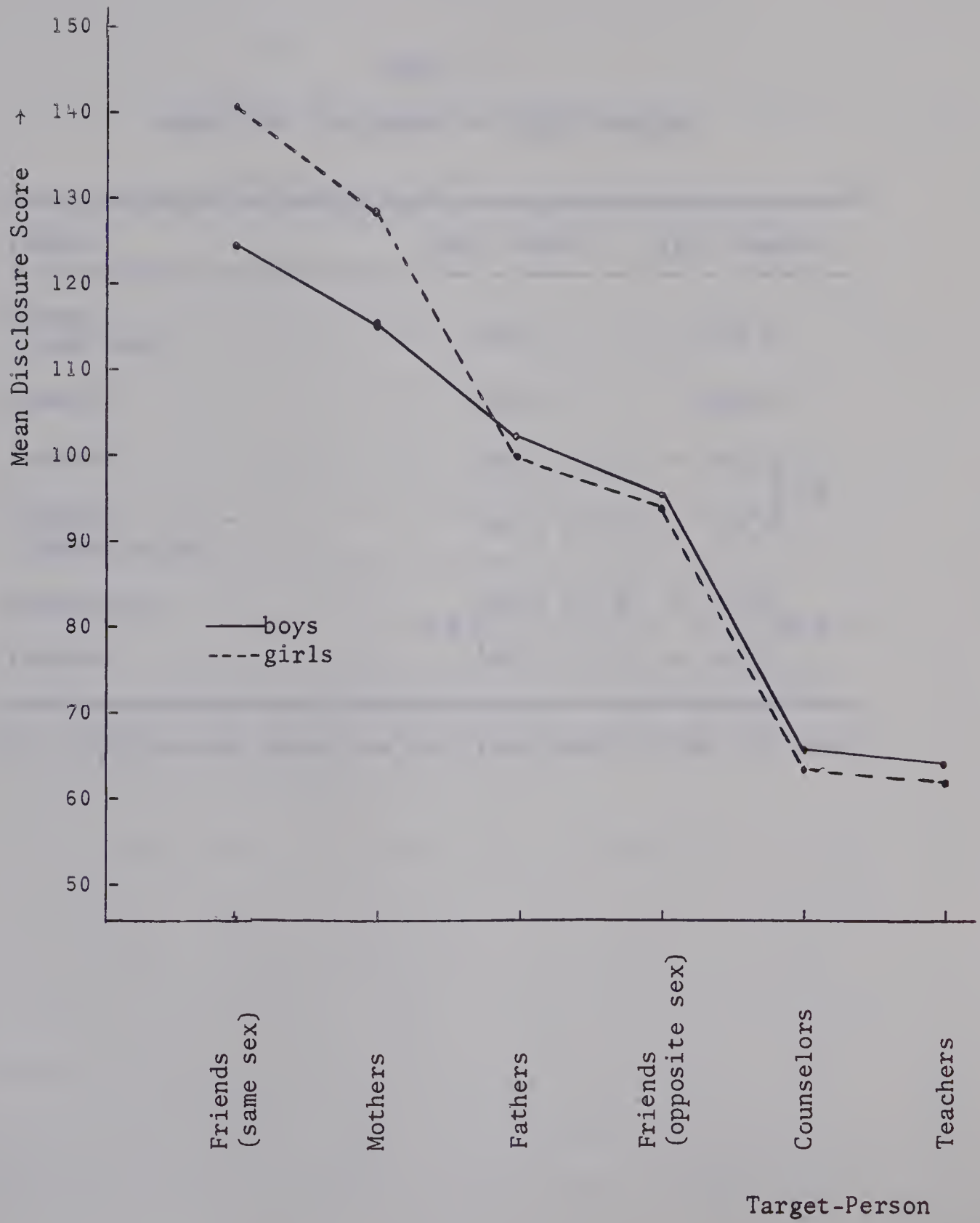


FIGURE 10

TABLE V
MEANS FOR DISCLOSURE TO TARGET-PERSONS

TARGET:	Boys' Means	Girls' Means
Friend (same sex)	124.1	140.1
Mothers	114.4	128.0
Fathers	102.3 ← N.S.	→ 99.1
Friends (opposite sex)	95.3 ← N.S.	→ 93.7
Counselors	N.S. {	65.9 ← N.S. → 63.9
Teachers		63.6 ← N.S. → 60.7

N.S. → Differences which are not significant at the .01 level.

be made, most of which are significant, the data are presented in simplest form by indicating those differences which are not significant at the .01 level.

The rather stringent .01 level of significance was chosen because:

- a) the analysis consisted of an *a posteriori* comparison of observed differences,
- b) thirty-six different comparisons can be made. (One out of twenty could reach significance by chance alone, if the .05 level were used.)

The conventional t-test for independent samples was used to test for significance of differences between the means for boys and girls. The conventional t-test for correlated observations was used to test for significance of a difference between means for targets. The means provided in Table V may therefore be compared horizontally between sexes and also vertically within sexes.

Of particular note is the finding that neither girls nor boys disclose significantly more to counselors than to teachers. The order of target preference for self-disclosure is also identical to that found by Melikian (1962) for his sample of male students, representing nine different cultures, attending the University of Beirut. The findings are also in agreement with those of Jourard (1964) who has consistently found that his subjects disclose more to mothers than to fathers.

Also of relevance is the observation that, for boys, the correlation coefficient between anxiety and self-disclosure to the same sexed friend is .19 ($p < .05$). The correlation between anxiety

and total self-disclosure is .15 (N.S.). Moreover, self-disclosure to no other target-person was significantly related to anxiety. For girls, the correlation coefficient between anxiety and self-disclosure to same sexed friend is .36 ($p < .01$). The correlation between anxiety and total self-disclosure is .21 ($p < .05$). Self-disclosure to no targets, other than friends, was significantly related to anxiety. These data thus suggest that anxious adolescents tend toward high disclosure to their friends, or alternatively that high disclosure to friends, in particular, is associated with high anxiety.

Self-disclosure of aspects-of-self. It may be argued that comparisons among means for aspects, rigorously cannot be made, as different scales are involved which have an unknown degree of comparability. Making these "scales" comparable by setting their means and standard deviations equal, is a relatively simple statistical task. However, such a "scaling" procedure necessarily assumes that adolescents as a group disclose equivalent amounts about each aspect-of-self. Experience suggests that such an assumption is untenable.

The adolescent self-disclosure inventory consists of 48 items, all of which purport to measure one construct, namely the extent to which that biographical item becomes a focus of communication. For purposes of analysis, items can be meaningfully grouped according to aspect-of-self. Each aspect-group contains the same *number* of items. An aspect subtotal, therefore is, at minimum, an index of the number of items of the aspect-category which become the focus of communication and the frequency with which they do so.

The reader who is unprepared to assume scale comparability will not wish to generalize beyond the reported disclosure of the sample to the specific inventory. It should be noted that no such question of scaling is involved in making comparisons between sexes for the various aspects.

The mean disclosure scores for the various aspect-categories of the adolescent self-disclosure inventory are presented graphically in Figure 11, for 131 girls and 140 boys. The same data are presented in numerical form in Table VI. The means presented in Table VI may be compared horizontally between sexes and vertically within sexes. It is only for the vertical comparisons within sexes that the question of different scales arises.

It will be noted that for adolescents at this age level, girls are significantly more 'open' with respect to self-centered concerns, home and family relations, and boy-girl relations, than are boys. No other sex differences for aspect-disclosure are significant.

Boy-girl relationships appear to be the least discussed topic, especially for boys. It is a matter of some concern that, school being the most discussed topic, teachers and counselors are the least acceptable targets.

An investigation of the relationship between anxiety and aspect-disclosure also rendered some significant findings. A correlation coefficient of .22 ($p < .05$) between anxiety and disclosure of health and physical development concerns was found for boys. No other correlations between anxiety and aspect-disclosure were significant for this sex.

MEAN ASPECT DISCLOSURE SCORES, SEPARATELY
FOR BOYS AND GIRLS

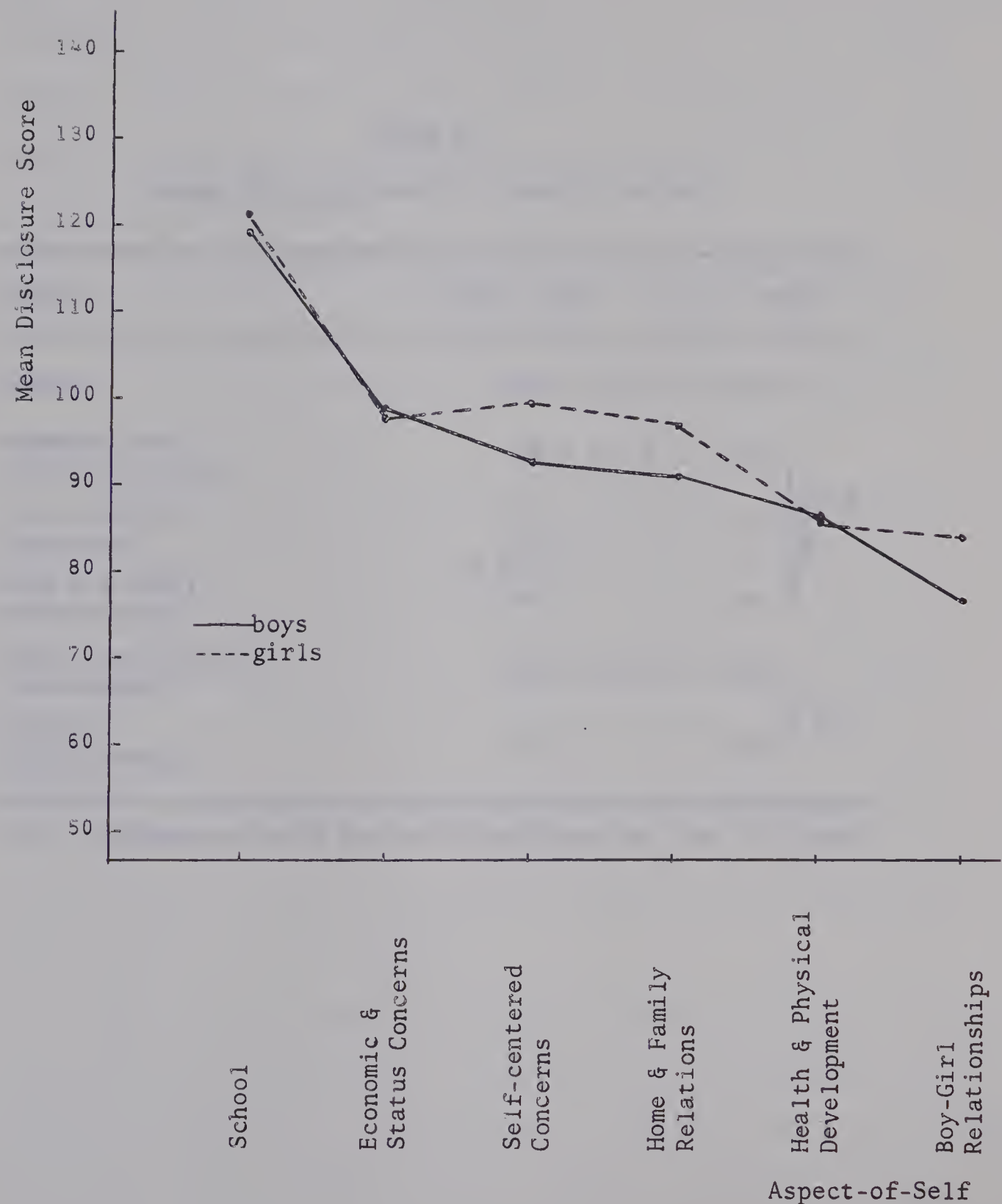


FIGURE 11

TABLE VI
MEANS FOR DISCLOSURE OF ASPECTS-OF-SELF

ASPECT:	Boys' Means	Girls' Means
School	119.4 ← N.S. → 121.1	
Economic and Status Concerns	98.8	97.5
Self-centered Concerns	93.2	99.7
Home and Family Relationships	90.4	96.7
Health and Physical Development	86.6	86.4
Boy-Girl Relationships	77.1	84.1

N.S.—Differences which are not significant at the .01 level.

A correlation between anxiety and disclosure of self-centered concerns of .21 ($p < .05$) was found for girls. Anxiety and disclosure of economic and status concerns correlated .19 ($p < .05$). Anxiety and disclosure of home and family concerns correlated .33 ($p < .01$). Anxiety did not correlate significantly with disclosure of any other aspect-of-self for girls.

It thus appears that anxiety is related to high disclosure of health and physical development concerns for boys and to high disclosure of self-centered concerns, socio-economic concerns and family relations for girls.

Selectivity in self-disclosure. Significant sex differences also were found for selectivity in self-disclosure. The mean and standard deviation of target-selectivity scores for girls were .341 and .066 respectively. The mean and standard deviation of target-selectivity scores for boys were .289 and .080 respectively. A t-statistic of 5.78 ($p < .01$) was found for the difference between the means for boys and girls. It therefore may be concluded that the girls of the sample evidenced more selectivity with respect to target-persons than did the boys.

The mean and standard deviation of aspect-selectivity scores for girls were .151 and .045. For boys the corresponding mean and standard deviation were .168 and .052. A t-statistic of 2.30 ($p < .05$) was found for the difference between the means for boys and girls.

These findings are supportive of the observation (Farson, 1954) that females in Western culture tend to be oriented toward "people," whereas males tend to be oriented toward content or "things."

The Hidden Figures Test—Cf-I. The mean and standard deviation of scaled H.F.T. scores for the 131 girls were 49.0 and 10.8 respectively. The mean and standard deviation of scaled H.F.T. scores for the 140 boys were 50.6 and 9.9. A t-statistic of 1.33 which is not significant was found for the difference between means for boys and girls. The apparent superiority of the boys on the H.F.T. is therefore not significant.

A correlation coefficient of .37 ($p < .01$) was found between H.F.T. scores and Grade IX Departmental examination aggregate-achievement scores. Moreover, a correlation coefficient of .37 ($p < .01$) was found between H.F.T. scores and *School and College Ability Test* scores. When the reliability of the H.F.T. (of the order .60) is considered, these correlation coefficients suggest that the H.F.T. measures to a considerable extent an intellectual factor.

CHAPTER VI

DISCUSSION AND SUMMARY

1. DISCUSSION OF RESULTS OF HYPOTHESIS TESTING

Total self-disclosure and anxiety. A small but significant and positive relationship between anxiety and total self-disclosure indicates that anxiety increases with self-disclosure and *vice versa*. The observed relationship between anxiety and self-disclosure may result from any or all of three possibilities.

1. Increased anxiety may cause increased self-disclosure.

In other words, anxiety may serve as a drive which provides the impetus to reveal generally concealed self-relevant data. This, presumably, is the contention of Dollard and Miller (1950). May (1958) also suggests that anxiety "is exactly what is required to shock people out of unaware dependence upon external dogma and to force them to unravel layers of pretense to reveal naked truth about themselves. . ." (p. 17).

2. Increased self-disclosure may cause increased anxiety.

Several writers (Jourard, 1958; Moustakas, 1967; Dreyfus, 1967; *etc.*) observe that self-disclosure may increase an individual's vulnerability to attack, rejection, or social alienation. May's (1958) definition of anxiety as the subjective experience of threat is also consistent with this point of view.

3. Both increased anxiety and increased self-disclosure simultaneously, may result from other common causes. For example,

a predominance of authoritarian, demanding, and probing targets in one's immediate environment may induce anxiety and elicit considerable self-disclosure at the same time. This is the classical intended effect of the cross-examination and of various brain-washing techniques.

The low relationship observed between anxiety and self-disclosure and the considerable variation in anxiety scores for a given level of self-disclosure suggests that different categories of subjects may react differently. It is frequently found that human behavior is more complex than initially perceived. Moreover, the mesh of causal relationships which explain human behavior are often obscured by unaccountable factors. It is possible for two variables to be closely related even when no correlation is found between them. Wallach (1962) states that "This can happen when subjects vary on some other factor such that some of them actually exhibit the relationship in question while others show some other kind of relationship" (p. 200). When such groups of subjects are lumped together, contrary effects are cancelled out. Saunders (1956) refers to differentiating factors which have this influence upon a relationship as *moderator variables*.

Extroversion-introversion may be hypothesized as a purely speculative illustration of a moderator variable in the relationship between self-disclosure and anxiety. Figure 12 illustrates a possible result.

The "atmosphere" in which an individual discloses, whether it be a) democratic, open, and accepting, or b) authoritarian,

judgmental, and punitive may well constitute such a moderator variable. It is suggested that future studies may profitably explore and attempt to delineate moderator variables that might influence self-disclosure relationships.

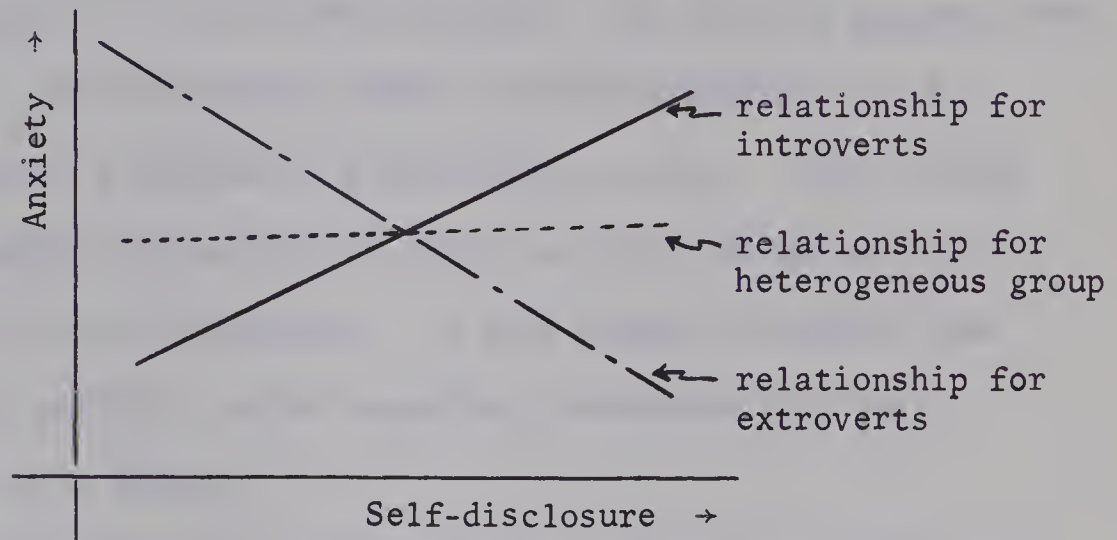


FIGURE 12

Although Hypothesis I was not supported by the data, caution must be exercised with respect to the theoretical considerations from which it is derived. A test of Hypothesis I does not constitute a crucial test of the complete theoretical rationale. It would likely be safer to clarify, revise, or qualify underlying theory than to reject it outright. It is possible that self-disclosure *under certain conditions* is synergistic and does result in anxiety reduction. It is also possible that self-disclosure under other conditions is threatening and therefore generates anxiety. What the data do suggest is that high self-disclosure *per se*, without regard to the conditions under which disclosures are made, is likely to be accompanied by high anxiety. It may be conjectured that, for the sample studied, neutral and favorable conditions for self-disclosure are generally outweighed

by threatening conditions which mask and reverse the possible beneficial effects of self-disclosure. Crucial tests of the relationship between anxiety and self-disclosure must, therefore, control for the conditions under which self-disclosures are made.

Relative to disclosure decisions, the findings suggest that, in general, concealingness rather than revealingness will be accompanied by a minimum of psychological stress. This finding does not imply that counselors should actively encourage their clients to be more concealing. It does suggest, however, that they should carefully avoid regarding transparency or self-disclosure as a panacea.

When considering self-disclosure patterns and their correlates, questions of value must not be overlooked. Integrity, openness, authenticity, and transparency rank high in the hierarchy of some value orientations. If a choice *must* be made between authenticity and anxiety some individuals, no doubt, will happily choose the former despite the possible cost in terms of the latter.

Selectivity in self-disclosure and anxiety. Hypothesis II was derived from the theoretical argument that those individuals who are not selective with respect to target-persons toward whom self-disclosures are made will unnecessarily subject themselves to attack, rejection, or other anxiety-inducing experiences. Hence it was predicted that high target selectivity would be associated with low anxiety.

The fact that the data not only fail to support this hypothesis but rather provide significant evidence to the contrary, presents a serious problem to the theory. The results indicate that

as target selectivity increases so does anxiety and *vice versa*.

It is possible that a different relationship between anxiety and target selectivity may obtain:

- a) when the targets considered include only those most significant others on whom one is highly dependent (*i.e.*, primary group members), and
- b) when targets considered consist of the population of casual acquaintances (*i.e.*, secondary group members).

It should be observed that all targets included in the inventory (parents, friends, and school professionals) are people whom the subject encounters daily and upon whom he must rely for help, guidance, and the gratification of his needs. Untenable relationships with these significant others may at one and the same time elicit anxiety and make selectivity in self-disclosure a necessary defense. Moreover, high selectivity in disclosure toward these particular targets suggests a possibility of discontinuity, inconsistency, or conflict in expectations of primary group members.

Although the findings indicate that a small positive relationship exists between anxiety and high target selectivity within a primary group, it must be recognized that the design of the study does not test the relationship between anxiety and selectivity in disclosure with respect to the larger community of potential targets. It, therefore, must not be inferred that target selectivity is always positively related to anxiety. In short, it may be conjectured that nature of the target group (primary *vs.* secondary) may constitute a moderator variable affecting the relationship between target selectivity

and anxiety. These considerations again suggest the need for clarification, modification, and qualification of theory, rather than hasty rejection.

Similar arguments hold regarding results for Hypothesis IV. In this case the data indicate that a small positive relationship exists between anxiety and selectivity in matching aspect-of-self disclosed with primary target to whom disclosures are made. A correlation coefficient of .89 was found between target-by-aspect selectivity scores and target selectivity scores. This finding indicates that about 80% of the variance of target-by-aspect selectivity scores is accounted for by target selectivity scores. Aspect selectivity scores account for approximately six per cent, with interaction and error accounting for the remaining variance.

The high correlation between target selectivity scores and target-by-aspect selectivity scores, suggests that, for all practical purposes, one of these indices is a redundant measure, contributing little information that is not provided by the other. In making a choice between these indices of selectivity in self-disclosure two observations should be noted:

1. Target-by-aspect selectivity indices are based upon 36 variate values rather than upon merely six.
2. Target-by-aspect selectivity indices consistently correlate higher with other variables.

The data provide no evidence of a statistically significant relationship between aspect-selectivity and anxiety. The results suggest that this construct may have little utility in studies of

self-disclosure patterns. Moreover, the computation of this index to assure decisive interpretation, precludes statistical scaling of aspect-groups.

In defining a region as "front" or "back," a consideration of both target and aspect are always implied. Hence it is suggested that a single selectivity index, namely the target-by-aspect selectivity index used in this study, may prove truly fruitful in studies of self-disclosure. This index can be interpreted simply as the degree to which the subject exercises caution or circumspection in defining a region. With this interpretation, the results of the study suggest that although anxious subjects tend toward greater self-disclosure, they also exercise greater caution in the designation of a region.

Selectivity in self-disclosure and psychological differentiation. No significant results were obtained in testing Hypotheses V, VI, and VII which deal with selectivity in self-disclosure and psychological differentiation. All correlation coefficients were of zero order. This finding coupled with the significant positive relationship observed between anxiety and target selectivity suggests that selectivity in self-disclosure is more likely to be a defensive adjustment to threat than the product of an idiosyncratic cognitive response style.

The results suggest that the concept of psychological differentiation has very little utility in self-disclosure studies. Indeed, some of the ancillary findings of the present study tend to contradict Witkin's (1962) differentiation hypothesis. It will be recalled that

this hypothesis contends that psychological differentiation with its "global" and "analytical" poles is a pervasive developmental attribute affecting all cognitive functioning. In short, it asserts that because of a developed level of psychological differentiation, subjects will tend toward undifferentiated or highly differentiated responding with an idiosyncratic consistency.

If this hypothesis were true, and if it is fair to equate selectivity with differentiation as it applies to self-disclosure, then positive results for Hypotheses V, VI, and VII would be expected.

Moreover, the differentiation hypothesis would predict a positive correlation between target selectivity and aspect selectivity, with the degree of selectivity evidenced in each case, arising from and indicative of the subject's general level of psychological differentiation.

A correlation coefficient of $-.13$ ($p < .05$) was obtained between target selectivity and aspect selectivity scores, for the sample of 271 subjects. This finding suggests that selectivity in self-disclosure is not a consistent response style. On the contrary, global or unselective disclosure with respect to targets tends to be associated with analytical or highly selective disclosure with respect to aspects, and *vice versa*.

These findings also suggest that the terms "global" and "analytical" may be misleading if used without qualification to describe self-disclosure patterns, since a single subject may be global with regard to aspects and analytical toward targets. Perhaps

the terms should be avoided altogether in the description of disclosure patterns because of their technical reference to an hypothesized dimension of psychological differentiation which appears to have little relevance to self-disclosure.

Disclosure, concealment, and openness. Chapter II, Section II of this dissertation deals with the congruence hypothesis and reports current psychological thinking in support of authenticity, congruence, transparency, and similar constructs. The section may be regarded as presenting a "thesis." Section III of Chapter II deals with arguments in favor of concealment and may be regarded as presenting an "antithesis." It was suggested that a synthesis of these different points of view and their supporting evidence would be contingent upon further empirical investigation of the correlates of self-disclosure.

The results of the present study point to a need for further clarification of the value derived from constructs such as congruence, authenticity, transparency, and the like, if they are to be meaningful to the practising counselor. Dreyfus (1967) in a recent article entitled *Openness: An Examination and Formulation* has made a creditable attempt to accomplish this end.

In his article, Dreyfus distinguishes between "openness" and "exhibitionism." Openness may facilitate both personal growth and the development of viable interpersonal relationships. Exhibitionism, transparency, or putting oneself on display, may have no such positive value. In an atmosphere of *openness*, one is free to either disclose or not to disclose. Such an atmosphere is

characterized by acceptance, genuineness, concern, and "letting-be." "There are no ought to's, have to's, or should's" (p. 310). According to Dreyfus, the person who fears being hurt and who does not want to reveal himself, is being more open than the exhibitionist who forces intimacy and closeness upon others by his transparency. Openness, exemplified in behavior so characterized by acceptance, understanding, positive regard, and letting-be, must not be confused with involuntary revealingness demonstrative of "professed" authenticity.

II. SUMMARY

Self-disclosure is a relatively unexplored area of adolescent behavior. The present study constitutes a correlational rather than an experimental investigation of this topic.

One of the major outcomes of the study is the finding that a small but positive relationship exists between anxiety and self-disclosure. This result suggests that counselors must not regard disclosure or transparency as a panacea for adolescent problems. Further investigation and experimental designs will be required to determine whether self-disclosure is a cause or an effect of anxiety. It was further suggested that unidentified moderator variables may differentially affect the relationship between self-disclosure and anxiety.

A small positive relationship was found between target-by-aspect selectivity and anxiety. In agreement with previously discussed theoretical considerations it was suggested that such selectivity or circumspection may be a realistic adjustment to a

high degree of anxiety and associated vulnerability.

Since aspect selectivity did not correlate significantly with anxiety and since target selectivity was found to index essentially the same construct as target-by-aspect selectivity, it was suggested that a single selectivity index, namely the target-by-aspect selectivity index, may prove fruitful in future studies of self-disclosure.

The fact that scores on the *Hidden Figures Test* correlate relatively high with achievement and ability scores, yet do not correlate significantly with scores for a single self-disclosure variable, suggests that selectivity exercised in self-disclosure has little to do with the hypothetical construct of psychological differentiation. Future research in self-disclosure may profitably avoid this barren area.

The order of target preference for both sexes of the adolescent sample (same sexed friend, mothers, opposite sexed friends, fathers. . .) was identical to that found by Melikian for his sample of college men representing nine different cultures. This finding suggests that target preference is strikingly similar for disparate age and cultural groups. Further cross-cultural studies may provide some indication of the factors which influence target preference.

Many sex differences in the disclosure patterns of adolescents have been identified. Perhaps the sex difference of greatest relevance to an understanding of adolescent disclosure behavior is the finding that girls tend to give greater consideration

to targets in their designation of a region than do boys. On the other hand boys give greater consideration to topic or aspect-of-self in their designation of a region than do girls.

An architectural model for portraying disclosure and concealment was presented to facilitate a description of self-disclosure patterns.

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The following table shows the results of the survey conducted in the year 1998. The data is presented in a tabular format, with the first column representing the category and the subsequent columns representing the values for each category. The data is as follows:

Category	Value 1	Value 2	Value 3
Category 1	10	20	30
Category 2	15	25	35
Category 3	20	30	40
Category 4	25	35	45
Category 5	30	40	50
Category 6	35	45	55
Category 7	40	50	60
Category 8	45	55	65
Category 9	50	60	70
Category 10	55	65	75
Category 11	60	70	80
Category 12	65	75	85
Category 13	70	80	90
Category 14	75	85	95
Category 15	80	90	100

DISCRIMINATION INDICES OF ITEMS SELECTED FOR
THE ADOLESCENT SELF-DISCLOSURE INVENTORY

Figures given in the following table are correlation coefficients between an item score for the target-group and the corresponding total score for the aspect-of-self represented by the item. The correlations were obtained by administering the original 120 items to a sample of 97 grade nine students.

HEALTH AND PHYSICAL DEVELOPMENT ITEMS	PARENTS	FRIENDS	SCHOOL PROFESSIONALS
1. Concerns about my health.	.69	.70	.78
2. My height.	.63	.68	.76
3. My posture.	.69	.66	.54
4. Aches and pains I have had.	.59	.70	.61
5. How weak or strong I am physically.	.59	.67	.55
6. Whether I am developing normally.	.62	.66	.59
7. My appetite.	.54	.65	.74
8. My skin condition or complexion.	.69	.62	.41
PERSONAL CONCERN ITEMS	PARENTS	FRIENDS	SCHOOL PROFESSIONALS
1. The things that make me feel sad or unhappy.	.75	.77	.71
2. My greatest faults.	.75	.77	.63
3. The things that get me worried or make me afraid.	.68	.76	.59
4. The mistakes that I have made.	.72	.71	.80
5. The troubles I get into.	.71	.75	.60

6.	Things I have done about which I feel guilty.	.62	.81	.61
7.	The embarrassing situations I have been in.	.64	.76	.50
8.	My bad habits.	.61	.73	.70

BOY-GIRL RELATIONS ITEMS		PARENTS	FRIENDS	SCHOOL PROFESSIONALS
1.	Whether I am popular with the girls (boys).	.72	.79	.85
2.	The boy (girl) whom I like very much.	.74	.80	.52
3.	How to make a date.	.75	.72	.68
4.	How I behave at a party.	.60	.84	.71
5.	Whether I am in love.	.67	.79	.56
6.	What I talk about on a date.	.69	.75	.54
7.	Questions and problems about sex.	.58	.80	.66
8.	What is proper sex behavior.	.64	.71	.70

HOME AND FAMILY ITEMS		PARENTS	FRIENDS	SCHOOL PROFESSIONALS
1.	How my parents treat me.	.72	.80	.84
2.	How well I get along with my mother.	.76	.80	.77
3.	Whether my parents criticize me.	.70	.76	.75
4.	Whether my parents under- stand me.	.70	.76	.68
5.	How well I get along with my father.	.73	.79	.47
6.	Whether my home life is happy.	.63	.75	.63

7. The way my parents annoy me.	.61	.74	.62
8. The responsibilities I have at home.	.69	.68	.47

SCHOOL CONCERNS ITEMS	PARENTS	FRIENDS	SCHOOL PROFESSIONALS
1. Which school subjects I like and which I dislike.	.66	.77	.65
2. Subjects I am poorest in at school.	.69.	.67	.78
3. How I feel about homework.	.69	.70	.62
4. My ability to learn at school.	.68	.64	.74
5. My occupational plans for the future.	.55	.74	.74
6. How well I get along with my teachers.	.61	.67	.55
7. How I feel about my school marks.	.59	.70	.42
8. How I feel about tests.	.50	.67	.66

MONEY AND STATUS CONCERNS ITEMS	PARENTS	FRIENDS	SCHOOL PROFESSIONALS
1. Whether I can afford to buy the things I need.	.70	.73	.75
2. The price of some of the things I have.	.60	.73	.75
3. Whether I need more or better clothes.	.61	.70	.65
4. How I feel about our car.	.58	.62	.85
5. How I earn my money.	.62	.59	.71
6. How much money I have.	.56	.62	.67
7. How wealthy or poor my parents are.	.51	.62	.67
8. Where I buy my clothes.	.55	.67	.58

APPENDIX II

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APPENDIX II

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AN INVENTORY OF ADOLESCENT

COMMUNICATION PATTERNS

(A S D I)

Directions :

This is an inventory to identify the kinds of topics that high school students discuss with various other people. You are asked to read each item carefully and then decide whether you discuss that topic "never", "hardly ever", "sometimes", or "often" with each of the persons named on your answer sheet. If the answer is never, circle "n"; if hardly ever, circle "h"; if sometimes, circle "s"; if often, circle "o". Read each item and work ACROSS the answer sheet. Six circles are required for each item (*i.e.* one for each person identified on the answer sheet). Work quickly, but carefully.

Example :

1. My favorite T.V. program.

father	fr.g.	couns.	mother	fr.b.	teach.
n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

Code :

n - never

h - hardly ever

s - sometimes

o - often

fr.b. - friend (boy)

fr.g. - friend (girl)

couns. - counsellor

teach. - teacher

1. Which school subjects I like and which I dislike.
2. My appetite.
3. The way my parents irritate me.
4. Whether I am popular with girls (boys).
5. Whether I can afford to buy the things I need.
6. Whether my parents understand me.
7. How I get along with my teachers.
8. The price of some of the things I have.
9. My posture.
10. How I feel about tests.
11. The troubles I get into.
12. My occupational plans for the future.
13. My height.
14. The things that get me worried or make me afraid.
15. How my parents treat me.
16. The boy (girl) whom I like very much.
17. How I feel about my school marks.
18. Whether I am in love.
19. How much money I have.
20. What I talk about on a date.
21. My skin condition or complexion.
22. My ability to learn at school.
23. How well I get along with my father.
24. Where I buy my clothes.
25. Things that make me feel sad or unhappy.
26. Whether my parents criticize me.
27. How weak or strong I am physically.
28. My greatest faults.

29. Whether I need more or better clothes.
30. What is proper sex behavior.
31. Concerns about my health.
32. The mistakes that I have made.

33. How wealthy or poor my parents are.
34. Whether I am developing normally.
35. How well I get along with my mother.
36. Questions and problems about sex.

37. Aches and pains I have had.
38. How I feel about homework.
39. The responsibilities I have at home.
40. How I behave at a party.

41. How I earn my money.
42. The embarrassing situations I have been in.
43. How to make (or turn down) a date.
44. My bad habits.

45. Whether my home life is happy.
46. Subjects I am poorest in at school.
47. How I feel about our car.
48. Things that I have done about which I feel guilty.

ANSWER SHEET

Name : _____

School : _____

Class : _____

AN INVENTORY OF ADOLESCENT
COMMUNICATION PATTERNS

n - never h - hardly ever s - sometimes o - often

	father	fr.g.	couns.	mother	fr.b.	teach.
1.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
2.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
3.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
4.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
5.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
6.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
7.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
8.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
9.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
10.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
11.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
12.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
13.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
14.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
15.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
16.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
17.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
18.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
19.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
20.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
21.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
22.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
23.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
24.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
25.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
26.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
27.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
28.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
29.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
30.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
31.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
32.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
33.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
34.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
35.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
36.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
37.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
38.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
39.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
40.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
41.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
42.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
43.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
44.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

	father	fr.g.	couns.	mother	fr.b.	teach.
45.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
46.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
47.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o
48.	n h s o	n h s o	n h s o	n h s o	n h s o	n h s o

UNCORRECTED SPLIT HALF, ODD-EVEN RELIABILITY
COEFFICIENTS FOR THE ADOLESCENT SELF-DISCLOSURE INVENTORY

ASPECTS-OF-SELF TARGET- PERSON	Health and Phys. Dev.	Self-centered Concerns	Boy-Girl Relations	Home and Family Relations	School	Money and Status Concerns	TOTALS
Mother	.71	.81	.80	.71	.75	.60	.93
Father	.76	.81	.75	.70	.80	.62	.92
Friend (male)	.74	.82	.80	.75	.82	.81	.95
Friend (female)	.78	.86	.83	.83	.83	.76	.95
Teacher	.72	.71	.56	.75	.74	.79	.92
Counselor	.77	.84	.73	.88	.89	.74	.96
TOTALS	.80	.85	.81	.79	.85	.71	.95

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